

PART 70 OPERATING PERMIT OFFICE OF AIR QUALITY

**Harrison Steel Castings Company
900 North Mound Street
Attica, Indiana 47918**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T045-6002-00002	
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: Expiration Date:

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SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary steel and ductile iron castings plant.

Responsible Official:	Executive Vice President
Source Address:	900 North Mound Street, Attica, Indiana 47918
Mailing Address:	P.O. Box 60, Attica, Indiana
SIC Code:	3325, 3321
County Location:	Fountain County
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD; Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

- (1) The scrap and charge handling process, constructed in 1951, with a maximum capacity of 24.5 tons of steel per hour, with emissions uncontrolled exhausting through stacks S8 and S10.
- (2) The melting process consisting of the following:
 - (a) One (1) electric arc furnace, identified as EAF2, constructed in 1951 with a maximum melt rate of 4.5 tons of steel or iron per hour with emissions controlled by one (1) baghouse, identified as DC4, exhausting through stack DC4.
 - (b) One (1) electric arc furnace, identified as EAF3, constructed prior to October 1974 with a maximum melt rate of 10 tons of steel or iron per hour with emissions controlled by one (1) baghouse, identified as DC5, exhausting through stack DC5.
 - (c) One (1) electric arc furnace, identified as EAF4, constructed in 1989 with a maximum melt rate of 10 tons of steel or iron per hour with emissions controlled by one (1) baghouse, identified as DC40, exhausting through stack DC40.

Note: Two (2) baghouses identified as DC38 and DC42 are used to control fugitive melt shop particulate emissions at the roof monitor.

- (3) The pouring, cooling, and shakeout operations consisting of the following:

- (a) One (1) pouring/casting operation, identified as POUR, constructed in or before 1951 with a maximum capacity of 20 tons of melted steel per hour and 183.68 tons of sand per hour with emissions uncontrolled.
 - (b) One (1) casting cooling operation, identified as POUR, constructed in or before 1951 with a maximum capacity of 20 tons of melted steel per hour and 183.68 tons of sand per hour with emissions uncontrolled.
 - (c) One (1) pouring/casting operation, identified as LDL, constructed in 1950, with a maximum capacity of 4.5 tons of melted steel per hour and 24.32 tons of sand per hour with emissions uncontrolled.
 - (d) One (1) casting cooling operation, identified as LDL, constructed in 1950, with a maximum capacity of 4.5 tons of melted steel per hour and 24.32 tons of sand per hour with emissions uncontrolled.
 - (e) One (1) shakeout system, identified as North Shakeout, constructed in 1958, with a maximum capacity of 2.29 tons of steel per hour and 8 tons of sand per hour with emissions controlled by two (2) baghouses, identified as DC2 and DC3.
 - (f) One (1) shakeout system, identified as South Shakeout, constructed in 1965, with a maximum capacity of 57.14 tons of steel per hour and 200 tons of sand per hour with emissions controlled by two (2) baghouses, identified as DC12 and DC9.
- (4) One (1) magnesium treatment operation for producing ductile iron castings, identified as DCTLE, constructed in 1987, with a maximum capacity of 4.5 tons of steel per hour with emissions uncontrolled.
- (5) The shot blasting operations consisting of the following;
- (a) Two (2) twin table blast machines, identified as L3/4 - NTT and L3/4 - STT, both constructed in 1961 each with a maximum capacity of 25 tons of steel per hour with emissions from L3/4 - NTT controlled by baghouse DC16 and emissions from L3/4 - STT controlled by baghouse DC18.
 - (b) One (1) Nelle Belle shotblast machine, identified as Nelle, constructed in 1955 with a maximum capacity of 60 tons of steel per hour with emissions controlled by a baghouse, identified as DC7.
 - (c) One (1) Wheelabrator Frye shotblast machine, identified as #16 Monorail, constructed in 1976 with a maximum capacity of 25.7 tons of metal per hour with emissions controlled by a baghouse, identified as DC17.
 - (d) Two (2) room blast machines, identified as LN3-Rm and LN5-S Rm, constructed in 1962 and 1967, respectively, with a maximum capacity of 8 tons of steel per hour each with emissions from LN3-RM controlled by baghouse DC30 and emissions from LN5-S Rm controlled by baghouse DC28.
 - (e) One (1) room blast machine, identified as LN5-N, constructed in 1960 with a

- maximum capacity of 10 tons of steel per hour with emissions controlled by a baghouse, identified as DC11.
- (f) One (1) room blast machine, identified as LN2-N, constructed in 1981 with a maximum capacity of 13 tons of steel per hour with emissions controlled by a baghouse, identified as DC23.
 - (g) One (1) tumble blast machine, identified as LN1-TMBL, constructed in 1945 with a maximum capacity of 4.5 tons of steel per hour with emissions controlled by a baghouse, identified as DC10.
 - (h) One (1) twin table blast machine, identified as LN6-TT, constructed in 1959 with a maximum capacity of 25 tons of steel per hour with emissions controlled by a baghouse, identified as DC24.
 - (i) One (1) monorail blast machine, identified as #18 Monorail, constructed in 1980 with a maximum capacity of 11.4 tons of steel per hour with emissions controlled by a baghouse, identified as DC21.
 - (j) One (1) room blast machine, identified as LN2-S Rm, constructed in 1979 with a maximum capacity of 7 tons of steel per hour with emissions controlled by a baghouse, identified as DC33.
 - (k) One (1) chill room tumble blast machine, identified as Chill Tmbl, constructed July 1, 1977, with a maximum capacity of 11.4 tons of steel per hour with emissions controlled by a baghouse, identified as DC6.
 - (l) One (1) chill room cabinet blast machine, identified as Chill Cbnt, constructed in 1978 with a maximum capacity of 11.4 tons of steel per hour with emissions controlled by a baghouse, identified as DC6.
- (6) One (1) sand handling system, identified as North Sand Handling System, constructed in 1988 and modified in 1994 with a maximum capacity of 8 tons of sand per hour with emissions controlled by a baghouse, identified as DC41.
 - (7) One (1) sand handling, identified as South Sand Handling System, constructed in 1967 and modified in 1988 with a maximum capacity of 200 tons of sand per hour with emissions controlled by four (4) baghouses, identified as DC20, DC35, DC36, and DC39.
 - (8) Core and mold making operations consisting of the following:
 - (a) One (1) Isocure core making machine equipped with a mixer, identified as Isocure, constructed in 1995 with a maximum capacity of 4.5 tons of sand per hour equipped with a scrubber to control TEA emissions, and with a one (1) ton new sand storage hopper and a seven (7) ton new sand storage hopper.
 - (b) One (1) Airset core making machine equipped with a mixer, identified as Pep Core, constructed in 1989 with a maximum capacity of 9 tons of sand per hour with emissions uncontrolled.

- (c) One (1) Pepset mold making machine equipped with a mixer, constructed in 1994 with a maximum capacity of 45 tons of sand per hour with emissions uncontrolled.
 - (d) One (1) Oil core making machine, identified as Red CO₂, constructed in 1988 with a maximum capacity of 0.05 tons of sand per hour with emissions uncontrolled.
 - (e) One (1) Airset core making machine equipped with a mixer, identified as Zircon, constructed in 1992 with a maximum capacity of 9 tons of sand per hour with emissions uncontrolled.
 - (f) Five (5) Oil Sand core making benches, constructed in 1959, each with a maximum capacity of 0.4 tons of oil sand per hour or 0.6 tons of CO₂ sand per hour.
 - (g) Two (2) Shell core making machines, constructed in 1962 and 1973, each with a maximum capacity of 0.075 tons of sand per hour.
 - (h) One (1) Shell core making machine constructed in 1976, with a maximum capacity of 0.125 tons of sand per hour.
 - (i) One (1) Airset core making machine equipped with a mixer, constructed in 1976, with a maximum capacity of 16.5 tons of sand per hour.
 - (j) One (1) core wash process, constructed prior to 1977, with emissions uncontrolled and exhausting internally.
- (9) One (1) natural gas-fired surface combustion heat treat furnace, identified as L7SC, constructed in 1997 with a maximum capacity of 24.5 million British thermal units per hour, with emissions uncontrolled.
- (10) One (1) new Airset molding line rated at a maximum steel production rate of 15.73 tons of steel or iron per hour and 47.2 tons of sand per hour. The Airset molding line consists of the following processes/equipment:
- (a) pouring operations with a maximum capacity of 15.73 tons of steel or ductile iron per hour and 47.2 tons of sand per hour, with emissions uncontrolled and exhausting through stacks S37through S42;
 - (b) castings cooling operations with a maximum capacity of 15.73 tons of steel or ductile iron per hour and 47.2 tons of sand per hour, with emissions uncontrolled and exhausting through stacks S37through S42;
 - (c) shakeout operations with a maximum capacity of 15.73 tons of steel or ductile iron per hour and 47.2 tons of sand per hour, with emissions controlled by two baghouses, identified as DC43 and DC44, and exhausting to stacks DC43 and DC44;
 - (d) sand handling operations with a maximum capacity of 47.2 tons of sand per hour, with emissions controlled by a baghouse identified as DC46, and exhausting to stack DC46. The sand handling system consists of the following equipment:

- (1) six sand storage silos, each controlled by a bin vent;
 - (2) four (4) sand heaters;
 - (3) covered pneumatic conveyors for transporting sand from silos to mixer;
- (e) mechanical reclaim operations with a maximum capacity of 47.2 tons of sand per hour, with emissions controlled by a baghouse identified as DC45 and exhausting to stack DC45;
- (f) one natural gas fired thermal reclaimer, with a maximum heat input capacity of 2.83 million Btu per hour, with a maximum capacity of 2.85 tons of sand per hour, with emissions controlled by a baghouse identified as DC46 and exhausting to stack DC46;
- (g) phenolic urethane no-bake mold making operations with a maximum capacity of 47.2 tons of sand per hour. The mold making operation consists of the following equipment.
 - (1) one enclosed mixer for combining mold sand with resin, with VOC emissions controlled by the thermal sand reclaimer;
 - (2) strike off operations;
 - (3) rollover draw/strip operations;
 - (4) one natural gas fired preheat tunnel with a maximum heat input capacity of 0.8 million Btu per hour;
 - (5) mold wash operations with a maximum capacity of 230.69 pounds of mold wash per hour, which is equivalent to 11.34 gallons of mold wash per hour;
 - (6) one natural gas fired drying (curing) oven, with a maximum heat input capacity of 3.2 million Btu per hour; and
 - (7) one mold closer process which puts the two halves of the mold together.

Note: Each individual shakeout unit has a maximum design capacity of 10 tons of metal per hour; however, the pouring and cooling operations bottleneck the shakeout process, such that the total hourly rate at shakeout cannot exceed 15.73 tons of metal per hour.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)]
[326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

- (a) Machining where an aqueous cutting coolant continuously floods the machining interface.
[326 IAC 6-3-2]
- (b) Furnaces used for melting metals other than beryllium with a brim full capacity of less than or equal to 450 cubic inches by volume.[326 IAC 6-3-2]
- (c) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations. [326 IAC 6-3-2]

- (1) Grinding machines each with a maximum capacity of 18.9 pounds per hour with emissions controlled by baghouses, identified as DC13, DC14, DC26, and DC37.
- (2) One (1) pattern woodworking shop with emissions controlled by a roto-clone, identified as DC1.
- (d) Flame cutting - natural gas and oxygen torch to remove gates, spurs, and rizers.[326 IAC 6-3-2]
- (e) Flame wash - arc welding like torch to smooth castings after flame cutting.[326 IAC 6-3-2]
- (f) One (1) paint booth for coating metal castings, constructed prior to 1977, utilizing air assisted airless spray type, with VOC emissions uncontrolled and overspray controlled by using a filter wall, with emissions exhausting to stack S154.[326 IAC 6-3-2]

Mold making operations consisting of the following:

- (g) Four (4) green sand molding machines, identified as #20 Jolt, #8 Jolt, #13 Jolt, and #21 Jolt constructed in 1941, 1929, 1930, and 1996, respectively, each with a maximum capacity of 13 tons of sand per hour.[326 IAC 6-3-2]
- (h) One (1) green sand molding machine, identified as Herm Jolt, constructed in 1977 with a maximum capacity of 26 tons of sand per hour with emissions uncontrolled.[326 IAC 6-3-2]
- (i) Two (2) green sand molding machines, identified as #14 Jolt and #10 Jolt, constructed in 1935 and 1929, respectively, each with a maximum capacity of 8 tons of sand per hour with emissions uncontrolled.[326 IAC 6-3-2]

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22); and
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

GENERAL CONDITIONS

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

This permit is issued for a fixed term of five (5) years from the original date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

This permit does not convey any property rights of any sort or any exclusive privilege.

(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the U. S. EPA along

with a claim of confidentiality. [326 IAC 2-7-5(6)(E)]

- (c) The Permittee may include a claim of confidentiality in accordance with 326 IAC 17. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Compliance with Permit Conditions [326 IAC 2-7-5(6)(A)] [326 IAC 2-7-5(6)(B)]

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:
 - (1) Enforcement action;
 - (2) Permit termination, revocation and reissuance, or modification; or
 - (3) Denial of a permit renewal application.
- (b) Noncompliance with any provisions of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act.
- (c) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (d) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in condition B, Emergency Provisions.

B.9 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]

- (a) To the extent specifically designated by this permit or required by an applicable requirement, compliance reports (including testing, monitoring, reporting, and record keeping requirements set forth in Sections D) prepared by the Permittee and submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

B.10 Annual Compliance Certification [326 IAC 2-7-6(5)]

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
 - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and
 - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ, may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

B.11 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)]
[326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The PMP and the PMP extension notification do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation.
- (d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

B.12 Emergency Provisions [326 IAC 2-7-16]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-7-16.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
 - (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
 - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality,
Compliance Section), or
Telephone Number: 317-233-5674 (ask for Compliance Section)
Facsimile Number: 317-233-5967

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(10) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
- (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

- (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
 - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
 - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value.

Any operation shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

B.13 Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-20] [326 IAC 2-7-12]

- (a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

- (b) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits. All previously issued operating permits are superseded by this permit.
- (c) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.
- (d) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.
- (e) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:

- (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
 - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
 - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
 - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (f) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
- (g) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ has issued the modifications. [326 IAC 2-7-12(c)(7)]
- (h) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ has issued the modification. [326 IAC 2-7-12(b)(7)]

B.14 Multiple Exceedances [326 IAC 2-7-5(1)(E)]

Any exceedance of a permit limitation or condition contained in this permit, which occurs contemporaneously with an exceedance of an associated surrogate or operating parameter established to detect or assure compliance with that limit or condition, both arising out of the same act or occurrence, shall constitute a single potential violation of this permit.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report.

The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:

- (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or
- (2) Failure to implement elements of the Preventive Maintenance Plan unless such failure has caused or contributed to a deviation.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred is a deviation.

- (c) Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination
[326 IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
 - (1) That this permit contains a material mistake.
 - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
 - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]
- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.17 Permit Renewal [326 IAC 2-7-4]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

(b) Timely Submittal of Permit Renewal [326 IAC 2-7-4(a)(1)(D)]

(1) A timely renewal application is one that is:

- (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
- (B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(2) If IDEM, OAQ, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

(c) Right to Operate After Application for Renewal [326 IAC 2-7-3]

If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as being needed to process the application.

(d) United States Environmental Protection Agency Authority [326 IAC 2-7-8(e)]

If IDEM, OAQ, fails to act in a timely way on a Part 70 permit renewal, the U.S. EPA may invoke its authority under Section 505(e) of the Clean Air Act to terminate or revoke and reissue a Part 70 permit.

B.18 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

(a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application should be certified by the “responsible official” as defined by 326 IAC 2-7-1(34).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)]
[326 IAC 2-7-12 (b)(2)]

- (a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.
- (b) Notwithstanding 326 IAC 2-7-12(b)(1)(D)(i) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.20 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b), (c), or (e), without a prior permit revision, if each of the following conditions is met:

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;
- (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of

the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-7-20(b), (c), or (e) and makes such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-7-20(b), (c)(1), and (e)(2).

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.

B.21 Source Modification Requirement [326 IAC 2-7-10.5]

A modification, construction, or reconstruction is governed by 326 IAC 2 and 326 IAC 2-7-10.5.

B.22 Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

- (b) Have access to and copy any records that must be kept under the conditions of this permit;
- (c) Inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The application which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)]

- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAQ, Technical Support and Modeling Section), to determine the appropriate permit fee.

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-7-5(1)]

C.1 Particulate Matter Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2(c)]

Pursuant to 326 IAC 6-3-2(c), the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.

C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC 4-1-3 (a)(2)(A) and (B) are not federally enforceable.

C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2. 326 IAC 9-1-2 is not federally enforceable.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.6 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on April 7, 1995. The plan includes the following:

- (a) Using wet suppression for stockpiles and unpaved roads on an as-needed basis.
- (b) Sweeping paved roads on an as-needed basis.

C.7 Operation of Equipment [326 IAC 2-7-6(6)]

Except as otherwise provided by statute, rule, or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.8 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. The provisions of 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4(d)(3), (e), and (f), and 326 IAC 1-7-5(d) are not federally enforceable.

C.9 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are . All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The notifications do not require a certification by the "responsible official" as defined by 326

IAC 2-7-1(34).

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Indiana Accredited Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable; however, the requirement that the inspector be accredited by Indiana is not federally enforceable.

Testing Requirements [326 IAC 2-7-6(1)]

C.10 Performance Testing [326 IAC 3-6]

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ,, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.11 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]

C.12 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.

C.13 Maintenance of Emission Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

- (a) In the event that a breakdown of the emission monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less often than once an hour until such time as the continuous monitor is back in operation.
- (b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

C.14 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

C.15 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

- (a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the

expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ($\pm 2\%$) of full scale reading.

- (b) Whenever a condition in this permit requires the measurement of a temperature, flow rate, or pH level, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ($\pm 2\%$) of full scale reading.
- (c) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

C.16 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

- (a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) These ERPs shall be submitted for approval to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within ninety (90) days after the date of issuance of this permit.

The ERP does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) If the ERP is disapproved by IDEM, OAQ the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.
- (d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.
- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
- (f) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.17 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

- (a) A compliance schedule for meeting the requirements of 40 CFR 68; or
- (b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP); and
- (c) A verification to IDEM, OAQ, that a RMP or a revised plan was prepared and submitted as required by 40 CFR 68.

All documents submitted pursuant to this condition shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

C.18 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

- (a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. The compliance monitoring plan can be either an entirely new document, consist in whole of information contained in other documents, or consist of a combination of new information and information contained in other documents. If the compliance monitoring plan incorporates by reference information contained in other documents, the Permittee shall identify as part of the compliance monitoring plan the documents in which the information is found. The elements of the compliance monitoring plan are:
 - (1) This condition;
 - (2) The Compliance Determination Requirements in Section D of this permit;
 - (3) The Compliance Monitoring Requirements in Section D of this permit;
 - (4) The Record Keeping and Reporting Requirements in Section C (General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and
 - (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAQ upon request and shall be subject to review and approval by IDEM, OAQ. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of:
 - (A) Reasonable response steps that may be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and
 - (B) A time schedule for taking reasonable response steps including a schedule for devising additional response steps for situations that may not have been predicted.
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall

be taken when indicated by the provisions of that compliance monitoring condition. Failure to take reasonable response steps may constitute a violation of the permit.

- (c) Upon investigation of a compliance monitoring excursion, the Permittee is excused from taking further response steps for any of the following reasons:
 - (1) A false reading occurs due to the malfunction of the monitoring equipment. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.
 - (3) An automatic measurement was taken when the process was not operating.
 - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (e) All monitoring required in Section D shall be performed at all times the equipment is operating. If monitoring is required by Section D and the equipment is not operating, then the Permittee may record the fact that the equipment is not operating or perform the required monitoring.
- (f) At its discretion, IDEM may excuse the Permittee's failure to perform the monitoring and record keeping as required by Section D, if the Permittee provides adequate justification and documents that such failures do not exceed five percent (5%) of the operating time in any quarter. Temporary, unscheduled unavailability of qualified staff shall be considered a valid reason for failure to perform the monitoring or record keeping requirements in Section D.

C.19 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5]
[326 IAC 2-7-6]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.20 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)] [326 IAC 2-6]

- (a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that must be received by July 1 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual emission statement shall meet the following requirements:

- (1) Indicate estimated actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);
- (2) Indicate estimated actual emissions of other regulated pollutants (as defined by 326 IAC 2-7-1) from the source, for purposes of Part 70 fee assessment.

- (b) The annual emission statement covers the twelve (12) consecutive month time period starting January 1 and ending December 31. The annual emission statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The emission statement does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) The annual emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

C.21 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]

- (a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.22 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

- (a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (d) Unless otherwise specified in this permit, any quarterly report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

Stratospheric Ozone Protection

C.23 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- (b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.

The scrap and charge handling process, constructed in 1951 with a maximum capacity of 24.5 tons of steel per hour, with emissions uncontrolled exhausting through stacks S8 and S10.

Note: Emissions from the scrap yard are fugitive emissions.

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Particulate Matter (PM) [326 IAC 6-3]

Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate matter (PM) from the scrap and charge handling process shall not exceed 35.0 pounds per hour when operating at a process weight rate of 24.5 tons of charge materials per hour. The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

SECTION D.2

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

The information describing the processes contained in this facility description box is descriptive information and does not constitute enforceable conditions.

The melting process consisting of the following:

- (a) One (1) electric arc furnace, identified as EAF2, constructed in 1951 with a maximum melt rate of 4.5 tons of steel or iron per hour with emissions controlled by one (1) baghouse, identified as DC4, exhausting through stack DC4.
- (b) One (1) electric arc furnace, identified as EAF3, constructed prior to October 1974 with a maximum melt rate of 10 tons of steel or iron per hour with emissions controlled by one (1) baghouse, identified as DC5, exhausting through stack DC5.
- (c) One (1) electric arc furnace, identified as EAF4, constructed in 1989 with a maximum melt rate of 10 tons of steel or iron per hour with emissions controlled by one (1) baghouse, identified as DC40, exhausting through stack DC40.

Note: Two (2) baghouses identified as DC38 and DC42 are used to control fugitive melt shop particulate emissions at the roof monitor.

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the following conditions shall apply:

- (1) The allowable PM emission rate from the electric arc furnace (EAF2) shall not exceed 11.2 pounds per hour when operating at a process weight rate of 4.5 tons of metal per hour.
- (2) The allowable PM emission rate from the electric arc furnace (EAF3) shall not exceed 19.2 pounds per hour when operating at a process weight rate of 10 tons of metal per hour.
- (3) The allowable PM emission rate from the electric arc furnace (EAF4) shall not exceed 19.2 pounds per hour when operating at a process weight rate of 10 tons of metal per hour.

The pounds per hour limitations were calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.2.2 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 not applicable, the following conditions shall apply:

- (a) The PM emissions from the baghouse DC40 controlling the electric arc furnace (EAF4) shall not exceed 5.48 pounds per hour.
- (b) The PM-10 emissions from the baghouse DC40 controlling the electric arc furnace (EAF4) shall not exceed 3.20 pounds per hour.

Therefore, the requirements of 326 IAC 2-2(PSD) and 40 CFR 52.21 do not apply.

D.2.3 Electric Arc Furnace Maximum Capacity

- (a) The maximum melt rate of the electric arc furnace (EAF2) shall not exceed 4.5 tons of steel or iron per hour.
- (b) The maximum melt rate of the electric arc furnace (EAF3) shall not exceed 10 tons of steel or iron per hour.
- (c) The maximum melt rate of the electric arc furnace (EAF4) shall not exceed 10 tons of steel or iron per hour.

Any change or modification to these units that would increase the capacity will need prior approval from IDEM.

D.2.4 Electric Arc Furnace Production [40 CFR 60, Subpart AAa]

None of the electric arc furnaces at this source shall be used to produce any intermediate products, such as steel bars, billets, etc. Therefore the requirements of the New Source Performance Standard (NSPS) Subpart AAa (Electric Arc Furnaces) shall not apply.

D.2.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these electric arc furnaces and all baghouses listed in this section.

Compliance Determination Requirements

D.2.6 Testing Requirements [326 IAC 2-7-6(1),(6)] [40 CFR 60.275a][326 IAC 2-1.1-11]

No later than 12 months after issuance of this permit, the Permittee shall perform PM and PM10 testing using methods as approved by the Commissioner, in order to demonstrate compliance with conditions D.2.1 and D.2.2. PM testing is required for baghouses DC4, DC5, and DC40. PM10 testing is only required for baghouse DC40 controlling the electric arc furnace EAF4. These tests shall be repeated at least once every two and a half (2.5) years from the date of a valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. PM10 includes filterable and condensable PM10.

D.2.7 Particulate Matter

In order to comply with the requirements of Conditions D.2.1 and D.2.2, the following conditions shall apply:

- (a) The baghouses DC4 and DC38 for PM and PM10 control shall be in operation at all times when the electric arc furnace EAF2 is in operation.

- (b) The baghouses DC5 and DC42 for PM and PM10 control shall be in operation at all times when the electric arc furnace EAF3 is in operation.
- (c) The baghouses DC40 and DC42 for PM and PM10 control shall be in operation at all times when the electric arc furnace EAF4 is in operation.
- (d) The baghouses DC42 and DC38 for PM and PM10 control shall be in operation at all times while oxygen lancing is conducted.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.2.8 Visible Emissions Notations

- (a) Visible emission notations of each of the baghouse (DC4, DC38, DC5, DC40, and DC42) stack exhaust(s) shall be performed once per shift during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting start-up or shut down times.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

D.2.9 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouses (DC4, DC38, DC5, DC40, and DC42) used in conjunction with the electric arc furnaces (EAF2, EAF3, and EAF4), at least once per shift when the associated electric arc furnace is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouses shall be maintained within the range of 2.0 - 8.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C -Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.2.10 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags (DC4, DC38, DC5, DC40, and

DC42) controlling the electric arc furnaces when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.

D.2.11 Broken or Failed Bag Detection

In the event that bag failure has been observed.

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.2.12 Record Keeping Requirements

- (a) In order to document compliance with Condition D.2.8, the Permittee shall maintain records of the visible emission notations of each of the electric arc furnace stack exhausts once per shift.
- (b) In order to document compliance with condition D.2.9, the Permittee shall maintain records of the following operational parameters once per shift during normal operation when venting to the atmosphere:
 - (1) Inlet and outlet differential static pressure; and
 - (2) Cleaning cycle operation.
- (c) In order to document compliance with Condition D.2.10, the Permittee shall maintain records of the results of the inspections required under Condition D.2.10 and the dates the vents are redirected.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.3

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.

The pouring, cooling, and shakeout operations consisting of the following:

- (a) One (1) pouring/casting operation, identified as POUR, constructed in or before 1951 with a maximum capacity of 20 tons of melted steel per hour and 183.68 tons of sand per hour with emissions uncontrolled.
- (b) One (1) casting cooling operation, identified as POUR, constructed in or before 1951 with a maximum capacity of 20 tons of melted steel per hour and 183.68 tons of sand per hour with emissions uncontrolled.
- (c) One (1) pouring/casting operation, identified as LDL, constructed in 1950, with a maximum capacity of 4.5 tons of melted steel per hour and 24.32 tons of sand per hour with emissions uncontrolled.
- (d) One (1) casting cooling operation, identified as LDL, constructed in 1950, with a maximum capacity of 4.5 tons of melted steel per hour and 24.32 tons of sand per hour with emissions uncontrolled.
- (e) One (1) shakeout system, identified as North Shakeout, constructed in 1958, with a maximum capacity of 2.29 tons of steel per hour and 8 tons of sand per hour with emissions controlled by two (2) baghouses, identified as DC2 and DC3.
- (f) One (1) shakeout system, identified as South Shakeout, constructed in 1965, with a maximum capacity of 57.14 tons of steel per hour and 200 tons of sand per hour with emissions controlled by two (2) baghouses, identified as DC12 and DC9.

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.3.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the following conditions shall apply:

- (a) The allowable PM emission rate from the pouring/casting operation identified as POUR shall not exceed 58.7 pounds per hour when operating at a process weight rate of 203.68 tons of metal and sand per hour.
- (b) The allowable PM emission rate from the casting cooling operation identified as POUR shall not exceed 58.7 pounds per hour when operating at a process weight rate of 203.68 tons of metal and sand per hour.
- (c) The allowable PM emission rate from the pouring/casting operation identified as LDL shall not exceed 39.0 pounds per hour when operating at a process weight rate of 28.8 tons of metal and sand per hour.

- (d) The allowable PM emission rate from the casting cooling operation identified as LDL shall not exceed 39.0 pounds per hour when operating at a process weight rate of 28.8 tons of metal and sand per hour.
- (e) The allowable PM emission rate from the baghouse DC2 controlling the North shakeout operation shall not exceed 19.5 pounds per hour when operating at a process weight rate of 10.3 tons of metal and sand per hour.
- (f) The allowable PM emission rate from the baghouses DC12 and DC9 controlling the South shakeout operation shall not exceed 61.3 pounds per hour when operating at a process weight rate of 257 tons of metal and sand per hour.

The pounds per hour limitations for (c), (d), and (e) were calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

The pounds per hour limitations for (a), (b), and (f) were calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate greater than 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 55 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

D.3.2 PM10 Emission Credits [326 IAC 2-2]

Pursuant to PSD Significant Source Modification Number 045-12788-00002 issued on June 13, 2001, and in order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Rules) not applicable for the new Airset mold line for PM10, the PM10 emission credits must be made federally enforceable; therefore, the following requirements shall apply.

- (a) The amount of metal throughput to the mold line identified as POUR shall not exceed 34,304.8 tons per 12 consecutive month period. For the first month after startup of the Airset mold line, the limit shall be 2858.7 tons per month.
- (b) The PM10 emissions from the pouring/casting operation identified as POUR shall not exceed 0.22 pounds per ton of metal throughput.
- (c) The PM10 emissions from the castings cooling operation identified as POUR shall not exceed 0.22 pounds per ton of metal throughput.
- (d) The PM10 emissions from the baghouses identified as DC12 and DC9 controlling the shakeout system identified as the South shakeout, shall not exceed a combined total of 0.02 pounds per ton of metal throughput.

D.3.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of

this permit, is required for each baghouse listed in this section.

Compliance Determination Requirements

D.3.4 Particulate Matter

In order to comply with the requirements of Conditions D.3.1 and D.3.2, the following conditions shall apply:

- (a) The baghouses, DC2 and DC3, for PM and PM10 control shall be in operation at all times when the North Shakeout system is in operation.
- (b) The baghouses DC12 and DC9 for PM and PM10 control shall be in operation at all times when the South Shakeout system is in operation.

D.3.5 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

Within 60 days after the Airset line achieves maximum production rate, but no later than 180 days after initial start-up of the Airset line, the Permittee shall perform PM10 emissions testing on the baghouses DC12 and DC9 used to control the South shakeout system, and the pouring/casting and castings cooling operations associated with the mold line identified as POUR. Testing shall be conducted using methods as approved by the Commissioner, in order to demonstrate compliance with Conditions D.3.2. The tests on the baghouses shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. PM10 includes filterable and condensable PM10.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.3.6 Visible Emissions Notations

-
- (a) Visible emission notations of each of the controlled stack exhaust(s) shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
 - (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting start-up or shut down times.
 - (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
 - (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
 - (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

D.3.7 Parametric Monitoring

The Permittee shall record the total static pressure drop across each of the baghouses used in conjunction with the either of the shakeout systems, at least once per shift when the associated

shakeout system is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 2.0 - 8.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C -Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.3.8 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the shakeout systems when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.

D.3.9 Broken or Failed Bag Detection

In the event that bag failure has been observed.

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.3.10 Record Keeping Requirements

- (a) In order to document compliance with Condition D.3.6, the Permittee shall maintain records of visible emission notations of the shakeout system stack exhaust(s) once per shift.
- (b) In order to document compliance with condition D.3.7, the Permittee shall maintain records of the following operational parameters once per shift during normal operation when venting to the atmosphere:

- (1) Inlet and outlet differential static pressure; and
- (2) Cleaning cycle operation.
- (c) In order to document compliance with Condition D.3.8, the Permittee shall maintain records of the results of the inspections required under Condition D.3.8 and the dates the vents are redirected.
- (d) To document compliance with Condition D.3.2, the Permittee shall maintain records of the metal throughputs to the POUR line. These records shall be complete and sufficient to establish compliance with the emission limits established in D.3.2.
- (e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.3.11 Reporting Requirements

Quarterly summaries of the information to document compliance with Condition D.3.2(a) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The reports submitted by the Permittee do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.4

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)] (2)]

The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.

One (1) magnesium treatment operation for the production of ductile iron, identified as DCTLE, constructed in 1987, with a maximum capacity of 4.5 tons of iron per hour with emissions uncontrolled.

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.4.1 Particulate Matter (PM) [326 IAC 6-3]

Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate matter (PM) from the magnesium treatment process identified as DCTLE shall not exceed 11.2 pounds per hour when operating at a process weight rate of 4.5 tons of iron per hour. The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.4.2 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 not applicable, the following conditions shall apply:

- (a) The amount of iron throughput to the magnesium ductile treatment (DCTLE) operation shall not exceed 26,630 tons of iron per 12 consecutive month period.
- (b) The PM emissions from the magnesium ductile treatment operation (DCTLE) shall not exceed 1.80 pounds per ton of iron throughput.

Therefore, the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 do not apply.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.4.3 Record keeping Requirements

- (a) In order to document compliance with Condition D.4.2(a), the Permittee shall maintain records of the metal throughput to the magnesium ductile treatment process in tons of iron per month.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.4.4 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.4.2(a) shall be submitted to the address listed in Section C - General Reporting Requirements, using the reporting form located at the end of this permit, or its equivalent, within thirty (30) days after the end of the

quarter being reported. The report submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.5

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.

The shot blasting operations consisting of the following;

- (a) Two (2) twin table blast machines, identified as L3/4 - NTT and L3/4 - STT, both constructed in 1961 each with a maximum capacity of 25 tons of steel per hour with emissions from L3/4 - NTT controlled by baghouse DC16 and emissions from L3/4 - STT controlled by baghouse DC18.
- (b) One (1) Nelle Belle shotblast machine, identified as Nelle, constructed in 1955 with a maximum capacity of 60 tons of steel per hour with emissions controlled by a baghouse, identified as DC7.
- (c) One (1) Wheelabrator Frye shotblast machine, identified as #16 Monorail, constructed in 1976 with a maximum capacity of 25.7 tons of metal per hour with emissions controlled by a baghouse, identified as DC17.
- (d) Two (2) room blast machines, identified as LN3-Rm and LN5-S Rm, constructed in 1962 and 1967, respectively, with a maximum capacity of 8 tons of steel per hour each with emissions from LN3-RM controlled by baghouse DC30 and emissions from LN5-S Rm controlled by baghouse DC28.
- (e) One (1) room blast machine, identified as LN5-N, constructed in 1960 with a maximum capacity of 10 tons of steel per hour with emissions controlled by a baghouse, identified as DC11.
- (f) One (1) room blast machine, identified as LN2-N, constructed in 1981 with a maximum capacity of 13 tons of steel per hour with emissions controlled by a baghouse, identified as DC23.
- (g) One (1) tumble blast machine, identified as LN1-TMBL, constructed in 1945 with a maximum capacity of 4.5 tons of steel per hour with emissions controlled by a baghouse, identified as DC10.
- (h) One (1) twin table blast machine, identified as LN6-TT, constructed in 1959 with a maximum capacity of 25 tons of steel per hour with emissions controlled by a baghouse, identified as DC24.
- (i) One (1) monorail blast machine, identified as #18 Monorail, constructed in 1980 with a maximum capacity of 11.4 tons of steel per hour with emissions controlled by a baghouse, identified as DC21.
- (j) One (1) room blast machine, identified as LN2-S Rm, constructed in 1979 with a maximum capacity of 7 tons of steel per hour with emissions controlled by a baghouse, identified as DC33.
- (k) One (1) chill room tumble blast machine, identified as Chill Tmbl, constructed July 1, 1977, with a maximum capacity of 11.4 tons of steel per hour with emissions controlled by a baghouse, identified as DC6.
- (l) One (1) chill room cabinet blast machine, identified as Chill Cbnt, constructed in 1978 with a maximum capacity of 11.4 tons of steel per hour with emissions controlled by a baghouse, identified as DC6.

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.5.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the following conditions shall apply:

- (a) The allowable PM emission rate from each of the baghouses DC16 and DC18 controlling the shotblast machines identified as the twin table shotblast machines L3/4-NTT and L3/4-STT, shall not exceed 35.4 pounds per hour each when operating at a process weight rate of 25 tons of metal castings per hour each.

- (b) The allowable PM emission rate from the baghouse DC7 controlling the shotblast machine identified as the Nelle Belle shotblast machine (Nelle) shall not exceed 46.3 pounds per hour when operating at a process weight rate of 60 tons of metal castings per hour.
- (c) The allowable PM emission rate from the baghouse DC17 controlling the shotblast machine identified as the Wheelabrator Frye shotblast machine (#16 Monorail) shall not exceed 36.1 pounds per hour when operating at a process weight rate of 25.7 tons of metal castings per hour.
- (d) The allowable PM emission rate from each of the baghouses DC30 and DC28 controlling the shotblast machines identified as the room blast shotblast machines LN3-Rm and LN5-S Rm, shall not exceed 16.5 pounds per hour when operating at a process weight rate of 8 tons of metal castings per hour each.
- (e) The allowable PM emission rate from the baghouse DC11 controlling the shotblast machine identified as the room blast shotblast machine LN5-N shall not exceed 19.2 pounds per hour when operating at a process weight rate of 10 tons of metal castings per hour.
- (f) The allowable PM emission rate from the baghouse DC23 controlling the shotblast machine identified as the room blast shotblast machine LN2-N shall not exceed 22.9 pounds per hour when operating at a process weight rate of 13 tons of metal castings per hour.
- (g) The allowable PM emission rate from the baghouse DC10 controlling the shotblast machine identified as the tumble blast shotblast machine LN1-TMBL shall not exceed 11.2 pounds per hour when operating at a process weight rate of 4.5 tons of metal castings per hour.
- (h) The allowable PM emission rate from the baghouse DC24 controlling the shotblast machine identified as the twin table blast shotblast machine LN6-TT shall not exceed 35.4 pounds per hour when operating at a process weight rate of 25 tons of metal castings per hour.
- (i) The allowable PM emission rate from the baghouse DC21 controlling the shotblast machine identified as the #18 monorail shotblast machine shall not exceed 20.9 pounds per hour when operating at a process weight rate of 11.4 tons of metal castings per hour.
- (j) The allowable PM emission rate from the baghouse DC33 controlling the shotblast machine identified as the room blast shotblast machine LN2-S Rm shall not exceed 15.1 pounds per hour when operating at a process weight rate of 7 tons of metal castings per hour.
- (k) The allowable PM emission rate from the baghouse DC6 controlling the shotblast machines identified as the chill room tumble blast shotblast machine (Chill TmbL) and the chill room cabinet blast shotblast machine (Chill Cbnt) shall not exceed 33.3 pounds per hour when operating at a combined process weight rate of 22.8 tons of metal castings per hour.

The pounds per hour limitations for (a), and (c) through (k) above were calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

The pounds per hour limitation for (b) above was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate greater than 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 55 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

D.5.2 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 not applicable, the following conditions shall apply:

- (a) The PM emissions from the baghouse DC23 controlling the LN2-N shot blast machine shall not exceed 5.48 pounds per hour.
- (b) The PM emissions from the baghouse DC21 controlling the #18 Monorail shot blast machine shall not exceed 5.48 pounds per hour.
- (c) The PM emissions from the baghouse DC33 controlling the LN2-S Rm shot blast machine shall not exceed 5.48 pounds per hour.
- (d) The PM emissions from the baghouse DC6 controlling the Chill room tumble blast shot blast machine (Chill Tmbl) and the Chill room cabinet blast shotblast machine (Chill Cbnt) shall not exceed 5.48 pounds per hour.

Therefore, the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 shall not apply.

D.5.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for each of the control devices listed in this section.

Compliance Determination Requirements

D.5.4 Particulate Matter

In order to comply with the requirements of Conditions D.5.1 and D.5.2, the following conditions shall apply:

- (a) The baghouse, DC16, for PM and PM10 control shall be in operation at all times when the L3/4-NTT shot blast machine is in operation.
- (b) The baghouse, DC18, for PM and PM10 control shall be in operation at all times when the L3/4-STT shot blast machine is in operation.
- (c) The baghouse, DC7, for PM and PM10 control shall be in operation at all times when the Nelle Belle shot blast machine is in operation.

- (d) The baghouse, DC17, for PM and PM10 control shall be in operation at all time when the Wheelabrator Frye shot blast machine is in operation.
- (e) The baghouse, DC30, for PM and PM10 control shall be in operation at all times when the LN3-Rm shot blast machine is in operation.
- (f) The baghouse, DC28, for PM and PM10 control shall be in operation at all times when the LN5-SRm shot blast machine is in operation.
- (g) The baghouse, DC11, for PM and PM10 control shall be in operation at all times when the LN5-N shot blast machine is in operation.
- (h) The baghouse, DC23, for PM and PM10 control shall be in operation at all times when the LN2-N shot blast machine is in operation.
- (i) The baghouse, DC10, for PM and PM10 control shall be in operation at all times when the LN1-TMBL shot blast machine is in operation.
- (j) The baghouse, DC24, for PM and PM10 control shall be in operation at all times when the LN6-TT shot blast machine is in operation.
- (k) The baghouse, DC21, for PM and PM10 control shall be in operation at all times when the #18 Monorail shot blast machine is in operation.
- (l) The baghouse, DC33, for PM and PM10 control shall be in operation at all times when the LN2-S Rm shot blast machine is in operation.
- (m) The baghouse, DC6, shall be in operation at all times when the Chill TmbL and Chill Cbnt shot blast machines are in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.5.5 Visible Emissions Notations

- (a) Visible emission notations of each of the shot blasting machines stack exhausts shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting start-up or shut down times.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take

Response Steps, shall be considered a violation of this permit.

D.5.6 Parametric Monitoring

The Permittee shall record the total static pressure drop across each of the baghouses used in conjunction with the shot blasting machines, at least once per shift when the shot blasting machines are in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across baghouses DC11 and DC30 shall be maintained within the range of 0.2 - 6.0 inches of water or a range established during the latest stack test. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across each of the other baghouses listed in this section shall be maintained within the range of 2.0 - 8.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C -Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.5.7 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the shot blasting machines when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.

D.5.8 Broken or Failed Bag Detection

In the event that bag failure has been observed.

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.5.9 Record Keeping Requirements

- (a) In order to document compliance with Condition D.5.5, the Permittee shall maintain records of

visible emission notations of the shot blasting machines stack exhaust(s) once per shift.

- (b) In order to document compliance with condition D.5.6, the Permittee shall maintain records of the following operational parameters once per shift during normal operation when venting to the atmosphere:
 - (1) Inlet and outlet differential static pressure; and
 - (2) Cleaning cycle operation.
- (c) In order to document compliance with Condition D.5.7, the Permittee shall maintain records of the results of the inspections required under Condition D.5.7 and the dates the vents are redirected.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.6

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.

- (a) One (1) sand handling system, identified as North Sand Handling System, constructed in 1988 and modified in 1994 with a maximum capacity of 8 tons of sand per hour with emissions controlled by a baghouse, identified as DC41.
- (b) One (1) sand handling, identified as South Sand Handling System, constructed in 1967 and modified in 1988 with a maximum capacity of 200 tons of sand per hour with emissions controlled by four (4) baghouses, identified as DC20, DC35, DC36, and DC39.

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.6.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the following conditions shall apply:

- (a) The allowable PM emission rate from the baghouse DC41 controlling the North sand handling system shall not exceed 16.5 pounds per hour when operating at a process weight rate of 8 tons of sand per hour.
- (b) The allowable PM emission rate from the baghouses DC20, DC35, DC36, and DC39 controlling the South sand handling system shall not exceed 58.5 pounds per hour (total for all four baghouses) when operating at a process weight rate of 200 tons of sand per hour.

The pounds per hour limitation for (a) was calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

The pounds per hour limitation for (b) was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate greater than 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 55 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

D.6.2 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 not applicable, the following condition shall apply:

- (a) The PM emissions from the baghouse DC41 controlling the North Sand Handling System shall not exceed 0.072 pound per ton of sand.

- (b) The PM-10 emissions from the baghouse DC41 controlling the North Sand Handling System shall not exceed 1.4 pounds per ton of sand.
- (c) The sand throughput to the North sand handling system shall not exceed 20,000 tons per 12 consecutive month period.
- (d) The PM emissions from the baghouses DC20, DC35, DC36, and DC39 controlling the South Sand Handling System shall not exceed 0.072 pound per ton of sand (total for all four baghouses combined).
- (e) The sand throughput to the South sand handling system shall not exceed 113,319.2 tons per 12 consecutive month period. For the first twelve months after issuance of this permit, the limit shall be 9443.2 tons per month.
- (f) The PM10 emissions from the baghouses DC20, DC35, DC36, and DC39 controlling the South Sand Handling System shall not exceed 0.005 pound per ton of sand (total for all four baghouses combined).

Therefore, the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 shall not apply. Compliance with (e) and (f) of this condition are necessary in order that the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 shall not apply to the new Airset mold line, as described in Section D.8 of this permit.

D.6.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for each of the baghouses listed in this section.

Compliance Determination Requirements

D.6.4 Particulate Matter

In order to comply with the requirements of Conditions D.6.1 and D.6.2, the following conditions shall apply:

- (a) The baghouse, DC41, for PM and PM10 control shall be in operation at all times when the North Sand Handling System is in operation.
- (b) The baghouses DC20, DC35, DC36, and DC39 for PM and PM10 control shall be in operation at all times when the South Sand Handling System is in operation.

D.6.5 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

Within 60 days after the Airset line achieves maximum production rate, but no later than 180 days after startup of the Airset line, the Permittee shall perform PM and PM10 emissions testing on the baghouses DC20, DC35, DC36, and DC39 used to control the South sand handling system using methods as approved by the Commissioner, in order to demonstrate compliance with Conditions D.6.1 and D.6.2. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. PM10 includes filterable and condensable PM10.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.6.6 Visible Emissions Notations

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- (a) Visible emission notations of North Sand Handling System stack exhausts and the South sand handling system stack exhausts shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
 - (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting start-up or shut down times.
 - (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
 - (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
 - (e) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

D.6.7 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouses DC41, DC20, DC35, DC36, and DC39 used in conjunction with the sand handling systems, at least once per shift when the sand handling systems are in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across each baghouse shall be maintained within the range of 2.0 - 8.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C -Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.6.8 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the sand handling systems when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.

D.6.9 Broken or Failed Bag Detection

In the event that bag failure has been observed.

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any

failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.6.10 Record Keeping Requirements

- (a) In order to document compliance with Condition D.6.6, the Permittee shall maintain records of visible emission notations of the sand handling systems stack exhausts once per shift.
- (b) In order to document compliance with condition D.6.7, the Permittee shall maintain records of the following operational parameters once per shift during normal operation when venting to the atmosphere:
 - (1) Inlet and outlet differential static pressure; and
 - (2) Cleaning cycle operation.
- (c) In order to document compliance with Condition D.6.8, the Permittee shall maintain records of the results of the inspections required under Condition D.6.8 and the dates the vents are redirected.
- (d) In order to document compliance with Condition D.6.2(c) and (e), the Permittee shall maintain records of the sand throughputs to the North and South sand handling systems in tons of sand per month.
- (e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.6.11 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.6.2(c) and (e) shall be submitted to the address listed in Section C - General Reporting Requirements, using the reporting form located at the end of this permit, or its equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.7

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.

Core and mold making operations consisting of the following:

- (a) One (1) Isocure core making machine, equipped with a mixer, identified as Isocure, constructed in 1995 with a maximum capacity of 4.5 tons of sand per hour equipped with a scrubber to control TEA emissions and with a one ton new sand storage hopper and a seven (7) ton new sand storage hopper.
- (b) One (1) Airset core making machine, identified as Pep Core, constructed in 1989 with a maximum capacity of 9 tons of sand per hour with emissions uncontrolled.
- (c) One (1) Pepset mold making machine, constructed in 1994 with a maximum capacity of 45 tons of sand per hour with emissions uncontrolled.
- (d) One (1) Oil core making machine, identified as Red CO₂, constructed in 1988 with a maximum capacity of 0.05 tons of sand per hour with emissions uncontrolled.
- (e) One (1) Airset core making machine equipped with a mixer, identified as Zircon, constructed in 1992 with a maximum capacity of 9 tons of sand per hour with emissions uncontrolled.
- (f) Five (5) Oil Sand core making benches, constructed in 1959, each with a maximum capacity of 0.4 tons of oil sand per hour or 0.6 tons of CO₂ sand per hour.
- (g) Two (2) Shell core making machines, constructed in 1962 and 1973, each with a maximum capacity of 0.075 tons of sand per hour.
- (h) One (1) Shell core making machine, constructed in 1976, with a maximum capacity of 0.125 tons of sand per hour.
- (i) One (1) Airset core making machine, constructed in 1976, with a maximum capacity of 16.5 tons of sand per hour.
- (j) One (1) core wash process, constructed prior to 1977, with emissions uncontrolled and exhausting internally.

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.7.1 VOC Emissions [326 IAC 8-1-6] [326 IAC 2-2]

The Isocure core making machine and the Pepset mold making machine each have potential emissions of VOC greater than 40 tons per year, therefore, in order to render the requirements of 326 IAC 8-1-6 (BACT) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable, the following conditions shall apply:

- (a) The scrubber controlling the Isocure core machine shall be in operation at all times when the core machine is in operation.

- (b) The VOC/TEA emissions from the scrubber controlling the TEA gas emissions from the Isocure core making machine shall not exceed 2.54 pound per hour.
- (c) The uncontrolled VOC emissions from the Isocure core making machine and mixer shall not exceed 5.43 pounds per hour.
- (d) The VOC emissions from the Pepset mold making machine shall not exceed 5.48 pounds per hour.
- (e) The sand throughput to the Pepset mold making machine shall not exceed 73,846.8 tons per 12 consecutive month period.

Therefore, the requirements of 326 IAC 8-1-6 (BACT) shall not apply. Compliance with above limits will also render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

D.7.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the scrubber.

Compliance Determination Requirements

D.7.3 VOC Control

In order to comply with the requirements of Condition D.7.1, the scrubber for VOC (TEA) emissions control shall be in operation at all times when the Isocure core machine is in operation.

D.7.4 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

Within 36 months after issuance of this permit, the Permittee shall perform VOC (TEA) emissions testing on the scrubber used to control the Isocure core machine using methods as approved by the Commissioner, in order to demonstrate compliance with Condition D.7.1. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.7.5 Parametric Monitoring

The Permittee shall monitor and record the acid content, pressure drop, and flow rate of the scrubber, at least once per shift when the associated Isocure core machine is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the scrubber shall be maintained within the range of 2.0 and 6.0 inches of water, or a range established during the latest stack test. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the flow rate of the scrubber shall be maintained at no less than 120 gallons per minute, or a minimum established during the latest stack test. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the acid content of each of the scrubbers shall be maintained at a pH level of less than or equal to 2, or an acid content established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading, or when the flow rate is below the above mentioned minimum level for any one reading, or when the pH is above the above mentioned maximum level for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take

Response Steps, shall be considered a violation of this permit.

The instruments used for determining the pressure, flow rate, and pH level shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.7.6 Scrubber Inspections

An inspection shall be performed each calendar quarter of the scrubber controlling the Isocure core machine when venting to the atmosphere. A scrubber inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors.

D.7.7 Failure Detection

In the event that a scrubber failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.7.8 Record Keeping Requirements

- (a) In order to document compliance with condition D.7.5, the Permittee shall maintain records of the following operational parameters for the scrubber once per shift during normal operation:
 - (1) pressure drop;
 - (2) flow rate; and
 - (3) acid content (pH level).
- (b) In order to document compliance with Condition D.7.6, the Permittee shall maintain records of the results of the inspections required under Condition D.7.6 and the dates the vents are redirected.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.7.9 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.7.1(e) shall be submitted to the address listed in Section C - General Reporting Requirements, using the reporting form located at the end of this permit, or its equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.8

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

One (1) new Airset molding line rated at a maximum steel production rate of 15.73 tons of steel or iron per hour and 47.2 tons of sand per hour. The Airset molding line consists of the following processes/equipment:

- (a) pouring operations with a maximum capacity of 15.73 tons of steel or ductile iron per hour and 47.2 tons of sand per hour, with emissions uncontrolled and exhausting through stacks S37 through S42;
- (b) castings cooling operations with a maximum capacity of 15.73 tons of steel or ductile iron per hour and 47.2 tons of sand per hour, with emissions uncontrolled and exhausting through stacks S37 through S42;
- (c) shakeout operations with a maximum capacity of 15.73 tons of steel or ductile iron per hour and 47.2 tons of sand per hour, with emissions controlled by two baghouses, identified as DC43 and DC44, and exhausting to stacks DC43 and DC44;
- (d) sand handling operations with a maximum capacity of 47.2 tons of sand per hour, with emissions controlled by a baghouse identified as DC46, and exhausting to stack DC46. The sand handling system consists of the following equipment:
 - (1) six sand storage silos, each controlled by a bin vent;
 - (2) four (4) sand heaters;
 - (3) covered pneumatic conveyors for transporting sand from silos to mixer;
- (e) mechanical reclaim operations with a maximum capacity of 47.2 tons of sand per hour, with emissions controlled by a baghouse identified as DC45 and exhausting to stack DC45;
- (f) one natural gas fired thermal reclaimer, with a maximum heat input capacity of 2.83 million Btu per hour, with a maximum capacity of 2.85 tons of sand per hour, with emissions controlled by a baghouse identified as DC46 and exhausting to stack DC46;
- (g) phenolic urethane no-bake mold making operations with a maximum capacity of 47.2 tons of sand per hour. The mold making operation consists of the following equipment.
 - (1) one enclosed mixer for combining mold sand with resin, with VOC emissions controlled by the thermal sand reclaimer;
 - (2) strike off operations;
 - (3) rollover draw/strip operations;
 - (4) one natural gas fired preheat tunnel with a maximum heat input capacity of 0.8 million Btu per hour;
 - (5) mold wash operations with a maximum capacity of 230.69 pounds of mold wash per hour, which is equivalent to 11.34 gallons of mold wash per hour;
 - (6) one natural gas fired drying (curing) oven, with a maximum heat input capacity of 3.2 million Btu per hour; and
 - (7) one mold closer process which puts the two halves of the mold together.

Note: Each individual shakeout unit has a maximum design capacity of 10 tons of metal per hour; however, the pouring and cooling operations bottleneck the shakeout process, such that the total hourly rate at shakeout cannot exceed 15.73 tons of metal per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.8.1 BACT for VOC [326 IAC 2-2-3(a)(3)] [326 IAC 8-1-6] [326 IAC 2-4.1-1]

Pursuant to 326 IAC 2-2-3(a)(3) (Prevention of Significant Deterioration (PSD) Rules) and 326 IAC 8-1-6 (BACT), and in order to render the requirements of 326 IAC 2-4.1-1 (New Source Toxics Control)

not applicable to the new Airset line, the Permittee shall comply with the following BACT requirements:

- (a) The VOC emissions from the pouring/casting and castings cooling operations shall be limited to 0.14 pounds per ton of metal poured and 2.20 pounds per hour.
- (b) The VOC emissions from the shakeout operations shall be limited to 1.2 pounds per ton of metal and 18.9 pounds per hour.
- (c) The metal throughput to this new Airset mold line shall not exceed 55,400 tons per 12 consecutive month period. Until 12 months of data have been collected, the limit shall be 4,617 tons per month.
- (d) The VOC emissions from the mold making process shall be limited to 1.17 pounds per ton of sand and 22.20 pounds per hour.
- (e) The VOC content of the mold wash shall not exceed 0.0 percent by weight.
- (f) The mold production shall not exceed 166,200 tons per 12 consecutive month period and the binder usage shall not exceed 1,662 tons per 12 consecutive month period. Until 12 months of data have been collected, the mold production limit shall be 13,850 tons per month and the binder usage limit shall be 138.5 tons per month.
- (g) The VOC emissions from the thermal sand reclamation system, which controls the mold sand mixer, shall not exceed 0.013 pounds per ton of sand mixed and 0.61 pounds per hour. The Department may revise this permit to adjust the VOC limitation based upon the results of the stack test required in Condition D.8.10. The Department will provide an opportunity for public notice and comment prior to finalizing any permit revision. IC 13-15-7-3 (Revocation or Modification of a Permit: Appeal to Board) shall apply to this permit condition.
- (h) The thermal sand reclamation system shall control VOC emissions from the mixer and achieve a minimum of 98% destruction efficiency.
- (i) The maximum throughput rate to the shakeout process shall not exceed 15.73 tons of metal per hour.

Therefore, the requirements of 326 IAC 2-4.1-1 (New Source Toxics Control) shall not apply to the mold making process. Compliance with the requirements of this condition will also satisfy the requirements of 326 IAC 8-1-6 (BACT).

D.8.2 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the following conditions shall apply:

- (a) The allowable PM emission rate from the pouring/casting and castings cooling process shall not exceed 46.7 pounds per hour each when operating at a process weight rate of 15.73 tons of metal per hour each and 47.2 tons of sand per hour each, for a total process weight rate of 62.9 tons per hour each.
- (b) The allowable PM emission rate from the baghouses DC43 and DC44 controlling the shakeout process shall not exceed 46.7 pounds per hour when operating at a process weight rate of 15.73 tons of metal per hour and 47.2 tons of sand per hour, for a total process weight rate of 62.9 tons per hour. The baghouses identified as DC43 and DC44

shall be in operation at all times the shakeout process is in operation, in order to comply with this limit.

- (c) The allowable PM emission rate from the baghouse DC46 controlling the sand handling process and the thermal reclaimer shall not exceed 44.0 pounds per hour when operating at a process weight rate of 47.2 tons of sand per hour. The baghouse identified as DC46 shall be in operation at all times the sand handling process is in operation, in order to comply with this limit.
- (d) The allowable PM emission rate from the baghouse DC45 controlling the mechanical reclaim process shall not exceed 44.0 pounds per hour when operating at a process weight rate of 47.2 tons of sand per hour.

The pounds per hour limitations were calculated using the following equation:

Interpolation and extrapolation of the data for the process weight rate greater than 60,000 pounds per hour shall be accomplished by use of the equations:

$$E = 55 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

D.8.3 PM and PM10 Emissions [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Rules) not applicable for PM and PM10, the Permittee shall comply with the following requirements:

- (a) At least 99% of all particulate matter (PM and PM-10,) emissions generated during sand handling, mechanical reclaim, and thermal reclaim operations shall be captured by a baghouse and controlled such that visible emissions from any building opening shall not exceed three percent (3%) opacity based on a six-minute average (24 readings taken in accordance with 40 CFR Part 60, Appendix A, Method 9).
- (b) At least 96% of all particulate matter (PM and PM-10,) emissions generated during shakeout operations shall be captured by a baghouse and controlled such that visible emissions from any building opening shall not exceed three percent (3%) opacity based on a six-minute average (24 readings taken in accordance with 40 CFR Part 60, Appendix A, Method 9).
- (c) The PM emissions from the baghouses DC43 and DC44 controlling the shakeout operations shall be limited to a total of 0.03 pounds per ton of metal throughput. Compliance with this limit will also satisfy the requirements of Condition D.8.2.
- (d) The PM10 emissions from the baghouses DC43 and DC44 controlling the shakeout operations shall be limited to a total of 0.022 pounds per ton of metal throughput.
- (e) The PM emissions from the baghouse DC46 controlling the Airset sand handling operations and the thermal reclaimer shall be limited to 0.036 pounds per ton of sand throughput to the Airset sand handling system. Compliance with this limit will also satisfy the requirements of Condition D.8.2.
- (f) The PM10 emissions from the baghouse DC46 controlling the sand handling operations and the thermal reclaimer shall be limited to 0.005 pounds per ton of sand throughput.

- (g) The sand throughput to the thermal sand reclamation system shall not exceed 24,930 tons per 12 consecutive month period. Until 12 months of data have been collected, the limit shall be 2,078 tons per month.
- (h) The sand throughput to the sand handling system shall not exceed 166,200 tons per 12 consecutive month period. Until 12 months of data have been collected, the limit shall be 13,850 tons per month.
- (i) The PM emissions from the baghouse DC45 controlling the mechanical reclaimer shall be limited to 0.036 pounds per ton of sand throughput. Compliance with this limit will also satisfy the requirements of Condition D.8.2.
- (j) The PM10 emissions from the baghouse DC45 controlling the mechanical reclaimer shall be limited to 0.005 pounds per ton of sand throughput.
- (k) The PM emissions from the pouring/casting process shall be limited to 0.22 pounds per ton of metal throughput. Compliance with this limit will also satisfy the requirements of Condition D.8.2.
- (l) The PM10 emissions from the pouring/casting process shall be limited to 0.22 pounds per ton of metal throughput.
- (m) The PM emissions from the castings cooling process shall be limited to 0.22 pounds per ton of metal throughput. Compliance with this limit will also satisfy the requirements of Condition D.8.2.
- (n) The PM10 emissions from the castings cooling process shall be limited to 0.22 pounds per ton of metal throughput.

Therefore, the requirements of 326 IAC 2-2 and 40 CFR 52.21 (PSD) will not apply for PM and PM10 emissions.

D.8.4 Lead Emissions [326 IAC 2-2] [326 IAC 2-4.1-1]

In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Rules) not applicable for lead, the Permittee shall comply with the following requirements.

- (a) The combined lead emissions from the Airset pouring/casting and castings cooling operations shall be limited to 0.13 pounds per hour.
- (b) Lead emissions from the Airset mold line shall be minimized in accordance with the attached Scrap Management Program (Attachment A).

Therefore, the requirements of 326 IAC 2-2 and 40 CFR 52.21 (PSD) will not apply for lead emissions.

D.8.5 HAPs Emissions [326 IAC 2-4.1-1]

In order to render the requirements of 326 IAC 2-4.1-1 (New Source Toxics Control) (PSD) Rules) not applicable, the metallic HAP emissions from the Airset mold line shall be minimized in accordance with the attached Scrap Management Program (Attachment A). Therefore, the requirements of 326 IAC 2-4-1.1 (New Source Toxics Control) shall not apply to the Airset mold line.

D.8.6 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the baghouses DC43 and DC44 controlling the shakeout operations, baghouse DC45 controlling the mechanical reclaimer, the thermal reclaimer and the baghouse DC46 controlling the thermal reclaimer, and the five bin vents controlling the six sand silos.

Compliance Determination Requirements

D.8.7 Particulate Matter Controls (PM/PM10)

In order to comply with the limits in Conditions D.8.2, D.8.3, D.8.4, and D.8.5, the following conditions shall apply:

- (a) The baghouses DC43 and DC44 for particulate control shall be in operation and control emissions from the shakeout operation at all times that the shakeout process is in operation.
- (b) The baghouse DC45 for particulate control shall be in operation and control emissions from the mechanical reclaimer at all times that the mechanical reclaimer is in operation.
- (c) The baghouse DC46 for particulate control shall be in operation and control emissions from the thermal reclaimer and the sand handling system at all times that the thermal reclaimer or the sand handling system is in operation.
- (d) The bin vents for particulate control shall be in place and control emissions from each of the six sand silos at all times that sand is being transferred into or out of the silos.
- (e) All conveyors associated with the sand handling system, mechanical reclamation system, and thermal reclamation system shall be completely enclosed.

D.8.8 Volatile Organic Compound (VOC) Controls

In order to comply with D.8.1(g), the thermal sand reclaimer for VOC control shall be in operation and control emissions from the sand mixer at all times that the mixing process is in operation. When operating, the thermal reclamation system shall maintain a minimum operating temperature of 1400 °F during operation or a temperature and fan amperage as determined from the most recent compliant stack test, as approved by IDEM.

D.8.9 Volatile Organic Compounds (VOC) Content and Usage Limitations

Compliance with the VOC content and usage limitations contained in Conditions D.8.1 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the mold wash solvent manufacturer.

D.8.10 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

- (a) Within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up the Permittee shall perform VOC testing from the thermal sand reclaimer controlling the sand mixer, the using methods as approved by the Commissioner, in order to demonstrate compliance with Conditions D.8.1(g) and (h). The test on the thermal sand reclaimer controlling the mixer shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.
- (b) Within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up the Permittee shall perform VOC testing from the Airset pouring, cooling, and shakeout operations, using methods as approved by the Commissioner, in order to demonstrate compliance with Conditions D.8.1(a) and (b). Testing shall be conducted in

accordance with Section C - Performance Testing.

- (c) Within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up the Permittee shall perform PM and PM10 testing from the facilities as shown in the table below.

Facility Identification	Control Device Identification
Airset shakeout units (both units)	baghouses DC43 and DC44
Airset sand handling system and thermal reclaimer	baghouse DC46
Airset mechanical reclaimer	baghouse DC45
Airset pouring/casting operations	no controls
Airset castings cooling operations	no controls

Testing shall be conducted using methods as approved by the Commissioner, in order to demonstrate compliance with Conditions D.8.2 and D.8.3. The tests on the baghouses shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. PM10 includes filterable and condensable PM10.

- (d) Any stack which has multiple processes which exhaust to the same stack shall operate all of the processes simultaneously in accordance with 326 IAC 3-6 (Source Sampling Procedures).

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.8.11 Visible Emissions Notations

- (a) Visible emission notations of the baghouses DC43, DC44, DC45, and DC46 stack exhausts shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

D.8.12 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouses DC43, DC44, DC45, and DC46 used in conjunction with the shakeout, sand handling, mechanical reclamation, and thermal reclamation processes, at least once per shift when these processes are in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouses shall be maintained within the range of 3.0 and 6.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

The instruments used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.8.13 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the shakeout, sand handling, mechanical reclamation, and thermal reclamation processes when the ventilation system is configured to vent to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.8.14 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

D.8.15 Thermal Reclaimer Monitoring

- (a) A continuous monitoring system shall be calibrated, maintained, and operated on the thermal sand reclamation system for measuring the operating temperature. The output of this system shall be recorded, and that temperature shall be greater than or equal to 1400 degrees Fahrenheit or the temperature used to demonstrate compliance during the most recent compliance stack test, as approved by IDEM.
- (b) The duct pressure or fan amperage shall be observed at least once per shift when the thermal sand reclaimer is in operation. This pressure or amperage shall be maintained

within the range specified by the manufacturer or a range as established in the most recent compliant stack test, as approved by IDEM.

- (c) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the reading is outside the above mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.8.16 Record Keeping Requirements

- (a) To document compliance with Condition D.8.11, the Permittee shall maintain records of visible emission notations of the baghouses DC 43, DC44, DC45, and DC46 stack exhausts once per shift.
- (b) To document compliance with Condition D.8.12, the Permittee shall maintain once per shift records of the inlet and outlet differential static pressure.
- (c) To document compliance with Condition D.8.13, the Permittee shall maintain records of the results of the inspections required under Condition D.8.13 and any dates the baghouse exhaust is changed from indoors to outdoors, and from the outdoors to the indoors.
- (d) To document compliance with Condition D.8.1 and D.8.3, the Permittee shall maintain records of the metal and sand throughputs to this new Airset mold line. These records shall be complete and sufficient to establish compliance with the emission limits established in D.8.1 and D.8.3.
- (e) To document compliance with Conditions D.8.1, D.8.8, and D.8.15, the Permittee shall maintain records in accordance with (1) and (2) below.
 - (1) The continuous temperature records for the thermal reclaimer and the temperature used to demonstrate compliance during the most recent compliance stack test.
 - (2) Records of the duct pressure or fan amperage once per shift.
- (f) In order to document compliance with Conditions D.8.1, the Permittee shall maintain records in accordance with (1) through (3) below.
 - (1) Copies of the Material Safety Data Sheets for each mold wash material used at the Airset mold line;
 - (2) The amount of binder usage in the Airset mold line, each month of operation; and
 - (3) The sand throughput to the thermal sand reclaimer, each month of operation.

D.8.17 Reporting Requirements

- (a) Quarterly summaries of the information to document compliance with Conditions D.8.1 and D.8.3 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or

their equivalent, within thirty (30) days after the end of the quarter being reported.

- (b) The reports submitted by the Permittee do require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

SECTION D.9

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.

Insignificant activities including the following:

- (a) Machining where an aqueous cutting coolant continuously floods the machining interface.
- (b) Furnaces used for melting metals other than beryllium with a brim full capacity of less than or equal to 450 cubic inches by volume.
- (c) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations.
 - (1) Grinding machines each with a maximum capacity of 18.9 pounds per hour with emissions controlled by baghouses, identified as DC13, DC14, DC26, and DC37.
 - (2) One (1) pattern woodworking shop with emissions controlled by a roto-clone, identified as DC1.
- (d) Flame cutting - natural gas and oxygen torch to remove gates, spurs, and rizers.
- (e) Flame wash - arc welding like torch to smooth castings after flame cutting.
- (f) One (1) paint booth for coating metal castings, constructed prior to 1977, utilizing air assisted airless spray type, with VOC emissions uncontrolled and overspray controlled by using a filter wall, with emissions exhausting to stack S154.

Mold making operations consisting of the following:

- (g) Four (4) green sand molding machines, identified as #20 Jolt, #8 Jolt, #13 Jolt, and #21 Jolt constructed in 1941, 1929, 1930, and 1996, respectively, each with a maximum capacity of 13 tons of sand per hour.
- (h) One (1) green sand molding machine, identified as Herm Jolt, constructed in 1977 with a maximum capacity of 26 tons of sand per hour with emission uncontrolled.
- (i) Two (2) green sand molding machines, identified as #14 Jolt and #10 Jolt, constructed in 1935 and 1929, respectively, each with a maximum capacity of 8 tons of sand per hour with emissions uncontrolled.

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.9.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from each of the above listed processes shall not exceed the pounds per hour limitations as calculated with the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

Compliance Determination Requirements

D.9.2 Particulate Matter Control

In order to comply with the requirements of Condition D.9.1, the control devices listed in this section for PM emissions control shall be in operation at all times when the associated facility is in operation.

SECTION D.10

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.

One (1) natural gas-fired surface combustion heat treat furnace, identified as L7SC, constructed in 1997 with a maximum capacity of 24.5 million British thermal units per hour with emissions uncontrolled.

There are no additional rules applicable to this facility.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

**PART 70 OPERATING PERMIT
CERTIFICATION**

Source Name: Harrison Steel Castings Company
Source Address: 900 North Mound Street, Attica, Indiana 47918
Mailing Address: P.O. Box 60, Attica, Indiana 47918
Part 70 Permit No.: T045-6002-00002

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

- 9 Annual Compliance Certification Letter
- 9 Test Result (specify) _____
- 9 Report (specify) _____
- 9 Notification (specify) _____
- 9 Affidavit _____
- 9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
P.O. Box 6015
100 North Senate Avenue
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967**

**PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT**

Source Name: Harrison Steel Castings Company
Source Address: 900 North Mound Street, Attica, Indiana 47918
Mailing Address: P.O. Box 60, Attica, Indiana 47918
Part 70 Permit No.: T045-6002-00002

This form consists of 2 pages

Page 1 of 2

- 9** This is an emergency as defined in 326 IAC 2-7-1(12)
- ☒ The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
 - ☒ The Permittee must submit notice by mail or facsimile within two (2) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16.

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:

Control Equipment:

Permit Condition or Operation Limitation in Permit:

Description of the Emergency:

Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO ₂ , VOC, NO _x , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

Part 70 Quarterly Report

Source Name: Harrison Steel Castings Company
Source Address: 900 North Mound Street, Attica, Indiana 47918
Mailing Address: P.O. Box 60, Attica, Indiana 47918
Part 70 Permit No.: T045-6002-00002
Facility: Magnesium ductile treatment operation
Parameter: Metal throughput to treatment operation
Limit: 26,630 tons per 12 consecutive month period

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.

Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

Part 70 Quarterly Report

Source Name: Harrison Steel Castings Company
Source Address: 900 North Mound Street, Attica, Indiana 47918
Mailing Address: P.O. Box 60, Attica, Indiana 47918
Part 70 Permit No.: T045-6002-00002
Facility: North and South sand handling systems
Parameter: sand throughput to each system
Limit: 20,000 tons per 12 consecutive month period for the North sand system; and
113,319.2 tons per 12 consecutive month period for the South sand system

YEAR: _____

North Sand System

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

South Sand System

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

- 9 No deviation occurred in this quarter.
9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____

Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

Part 70 Quarterly Report

Source Name: Harrison Steel Castings Company
Source Address: 900 North Mound Street, Attica, Indiana 47918
Mailing Address: P.O. Box 60, Attica, Indiana 47918
Part 70 Permit No.: T045-6002-00002
Facility: South sand handling system
Parameter: sand throughput to South sand handling system
Limit: 9,443.2 tons of sand per month

YEAR: _____

Month	Sand throughput (tons)
Month 1	
Month 2	
Month 3	

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.

Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

Part 70 Quarterly Report

Source Name: Harrison Steel Castings Company
Source Address: 900 North Mound Street, Attica, Indiana 47918
Mailing Address: P.O. Box 60, Attica, Indiana 47918
Part 70 Permit No.: T045-6002-00002
Facility: Pepset mold making machine
Parameter: Sand Throughput
Limit: 73,846.8 tons per 12 consecutive month period

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

- 9 No deviation occurred in this quarter.
- 9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

**PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Harrison Steel Castings Company
Source Address: 900 North Mound Street, Attica, Indiana 47918
Mailing Address: P.O. Box 60, Attica, Indiana 47918
Part 70 Permit No.: T045-6002-00002

Months: _____ to _____ Year: _____

Page 1 of 2

This report is an affirmation that the source has met all the requirements stated in this permit. This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

Permit Requirement (specify permit condition #)

Date of Deviation:

Duration of Deviation:

Number of Deviations:

Probable Cause of Deviation:

Response Steps Taken:

Permit Requirement (specify permit condition #)

Date of Deviation:

Duration of Deviation:

Number of Deviations:

Probable Cause of Deviation:

Response Steps Taken:

Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management Office of Air Quality

Addendum to the Technical Support Document for a Part 70 Operating Permit

Source Name: Harrison Steel Castings Company
Source Location: 900 North Mound Street, Attica, Indiana 47918
County: Fountain County
SIC Code: 3325, 3321
Operation Permit No.: T045-6002-00002
Permit Reviewer: Nisha Sizemore

On October 25, 2000, the Office of Air Quality (OAQ) had a notice published in the Fountain County Neighbor, Attica, Indiana, stating that Harrison Steel Castings Company had applied for a Part 70 Operating Permit to operate a steel and ductile iron foundry. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On November 22, 2000, Harrison Steel Castings Company submitted comments on the proposed Part 70 permit. The summary of the comments and responses are as follows (new permit text is shown in bold and deleted text is shown with a line through it):

Section A

Comment #1

The Responsible Official should be the Title "Executive Vice President" instead of a person's name.

Response #1

The requested change has been made.

Comment #2

Please correct the unit description in (3)(e) to indicate that the North Shakeout is controlled by two baghouses identified as DC2 and DC3.

Response #2

The requested change has been made in Section A.2 and in Section D.3, as shown below.

- (e) One (1) shakeout system, identified as North Shakeout, constructed in 1958, with a maximum capacity of 2.29 tons of steel per hour and 8 tons of sand per hour with emissions controlled by **a two (2) baghouses**, identified as DC2 and DC3.

Comment #3

Please correct the emission unit description at 8(a) and D.7(a) as shown below.

- (8) Core and mold making operations consisting of the following:
- (a) One (1) Isocure core making machine equipped with a mixer, identified as Isocure, constructed in 1995 with a maximum capacity of 4.5 tons of sand per hour equipped with a scrubber to control TEA emissions, and with a one (1) ~~to~~ ton and a seven (7) ton new sand storage hoppers.

Response #3

The requested change has been made. The corresponding change has also been made in Section D.7.

Comment #4

Please correct the installation date of the Airset core making machine in (8)(b) to 1989.

Response #4

The requested change has been made, as shown below. The corresponding change has also been made in Section D.7.

- (b) One (1) Airset core making machine equipped with a mixer, identified as Pep Core, constructed in ~~1992~~ 1989 with a maximum capacity of 9 tons of sand per hour with emissions uncontrolled.

Comment #5

Please delete "equipped with a mixer" as the machines at (8)(d), (h), and (j) are not so equipped.

Response #5

The requested changes have been made, as shown below. The corresponding change has also been made in Section D.7.

- (d) One (1) Oil core making machine ~~equipped with a mixer~~, identified as Red CO₂, constructed in 1988 with a maximum capacity of 0.05 tons of sand per hour with emissions uncontrolled.
- (g) Two (2) Shell core making machines, ~~each equipped with a mixer~~, constructed in 1962 and 1973, each with a maximum capacity of 0.075 tons of sand per hour.
- (h) One (1) Shell core making machine ~~equipped with a mixer~~, constructed in 1976, with a maximum capacity of 0.125 tons of sand per hour.

Comment #6

Please delete the emission unit description at (8)(f) as the unit is no longer at the facility.

Response #6

The requested change has been made, as shown below. The corresponding change has also been made in Section D.7.

- (f) ~~One (1) CO₂ core making machine equipped with a mixer, constructed in 1954, with a maximum capacity of 0.4 tons of sand per hour.~~

Comment #7

Please correct the unit description at (8)(g) as shown below.

- (g) ~~Three (3)~~ **Five (5)** Oil Sand core making machines, each equipped with a mixer, benches constructed in 1959, each with a maximum capacity of 0.4 tons of oil sand per hour ~~and or~~ 0.6 tons of CO₂ sand per hour.

Response #7

The requested change has been made. The corresponding change has also been made in Section D.7. Because some units have been deleted, this unit is now under (8)(f).

Comment #8

Please delete the emission unit description as (8)(i) as the unit is no longer at the facility.

Response #8

The requested change has been made, as shown below. The corresponding change has also been made in Section D.7.

- (i) ~~One (1) CO₂ core making machine equipped with a mixer, constructed in 1971, with a maximum capacity of 0.3 tons of sand per hour.~~

Comment #9

Please correct "molding making in A.3 to "mold making."

Response #9

The requested change has been made. The corresponding change has also been made in Section D.7.

Section B

Comment #10

Please delete condition B.1

Response #10

The requested change has been made as shown below.

B.1 Permit No Defense [IC-13]

- (a) ~~Indiana statutes from IC-13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7.~~
- (b) ~~This prohibition shall not apply to alleged violations of applicable requirements for which the Commissioner has granted a permit shield in accordance with 326 IAC 2-1-3.2 or 326 IAC 2-7-15, as set out in this permit in the Section B condition entitled "Permit Shield."~~

Comment #11

Harrison Steel objects to Condition B.9 (Compliance with Permit Conditions). There may be circumstances where IDEM, OAQ, in its prosecutorial discretion, might decide that noncompliance with a provision of the permit should not be grounds for enforcement action or permit termination, revocation and reissuance, or modification or denial of a permit renewal application. As written, this Condition appears to take that discretion away from IDEM, OAQ. Accordingly, Harrison Steel, recommends that the first sentence of paragraph (a) be deleted and the second sentence changed to state that noncompliance may be grounds for enforcement.

Response #11

IDEM does not believe the condition as stated takes away IDEM's discretion in determining whether any enforcement action, or permit termination, revocation and reissuance, or modification or denial of a permit renewal application is appropriate. The condition only states that failure to comply with the permit is grounds for any of these actions. IDEM still has the discretion to decide which actions, if any, are appropriate. The Condition has been re-numbered as B.8.

Some changes have been made to paragraph (a) in order to clarify that any noncompliance is grounds for enforcement. A new paragraph has now been included as paragraph (b) to explain that only violations of federally enforceable conditions constitute violations of the Clean Air Act. Paragraph (d) has been added to clarify that an emergency does constitute a defense in an enforcement action if the Permittee complies with the emergency procedures.

B.8 Compliance with Permit Conditions [326 IAC 2-7-5(6)(A)] [326 IAC 2-7-5(6)(B)]

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit, ~~except those specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act and is grounds for:~~
 - (1) Enforcement action;
 - (2) Permit termination, revocation and reissuance, or modification; or
 - (3) Denial of a permit renewal application.

- (b) **Noncompliance with any provisions of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act.**
- (b) (c) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (d) **An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in condition B, Emergency Provisions.**

Comment #12

Harrison Steel objects to Condition B.10. This Condition is vague as written and should be revised to clearly state when certifications are required. Accordingly, Harrison Steel recommends that this Condition be revised as shown below.

- B.10 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]
-
- (a) ~~Where~~ **To the extent** specifically designated by this permit or required by an applicable requirement, ~~any application form, report, or compliance certification~~ **compliance reports (including testing, monitoring, reporting and record keeping requirements set forth in Section D) prepared by the Permittee and** submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
 - (b) One (1) certification shall be included, on the attached Certification Form, with each submittal **requiring certification**.
 - (c) A responsible official is defined at 326 IAC 2-7-1(34).

Response #12

IDEM agrees that the proposed revisions clarify the requirements of the Condition. The requested changes have been made. The Condition has been re-numbered as B.9.

Comment #13

Harrison Steel objects to Condition B.11. Subsection (a) is confusing and misleading as written. The word "and" needs to be added at the end of subsection (c)(3) of this Condition and (c)(5) should be deleted because it is vague and without regulatory authority. Therefore, Harrison Steel recommends that this Condition be revised as shown below.

- B.11 Annual Compliance Certification [326 IAC 2-7-6(5)]
-
- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the **enforceable** terms and conditions contained in this permit, ~~including emission limitations, standards, or~~

~~work practices.~~ The certification shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
 - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining compliance of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3);
 - (5) ~~Such other facts, as specified in Sections D of this permit, as IDEM, OAQ, may require to determine the compliance status of the source.~~

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Response #13

IDEM does not agree with the change proposed to paragraph (a) because all terms and conditions contained in this permit are enforceable. Additionally IDEM does not agree to delete (c)(5) because the source should provide all information used for determining the compliance status of the source. For clarification purposes, IDEM has made the following changes to this Condition. The Condition has been re-numbered as B.10.

B.10 Annual Compliance Certification [326 IAC 2-7-6(5)]

- (a) The Permittee shall annually submit a compliance certification report which

addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. **The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent** The certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
 - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining **the** compliance **status** of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and
 - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Comment #14

Harrison Steel objects to Condition B.12 (Preventive Maintenance Plan). Subsection (a) should be revised to designate maintenance workers by job title. The second sentence in (c) should be deleted.

Response #14

The titles of the individuals can be one of the ways to identify the responsible individuals, but the wording of the condition tracks the rule language and will not be changed. IDEM has the authority to require the source to change its PMP under the provisions of 326 IAC 2-7-6(1) and (6) and also under 326 IAC 1-6-3(b). IDEM has changed the Condition to include the record keeping requirements. The Condition has been re-numbered as B.11.

B.11 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)]
[326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond its the **Permittee's** control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The PMP and the PMP extension notification do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) **Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the**

Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

Comment #15

Harrison Steel objects to Condition B.14 (Permit Shield). Harrison Steel supports the express inclusion of the permit shield in the permit, as indicated in subsection (a). However, the language needs to implement the permit shield, rather than restate the authorizing rule. The language as drafted does not implement the permit shield, and appears to unnecessarily "qualify" the permit shield contained herein. Harrison Steel also objects to the first sentence of subsection (b) because the Permit should be the only document used to determine compliance with all applicable requirements. Accordingly, Harrison Steel recommends that the first sentence of subsection (b) be deleted. Additionally, the first sentence of subsection (c) should not reference previous operation permits.

Response #15

On July 28, 1998, the OAQ was notified that the U.S. EPA would object to any Title V Operating Permit that superceded all previous construction permits. The U.S. EPA indicated that they believed that the authority for certain applicable requirements might expire if the construction permits that established them expired. The OAQ believes that the regulatory process is best served if all affected parties are able to rely on the Title V Operating Permit to identify all applicable requirements and the means for demonstrating compliance with each requirement. IDEM has deleted the reference to operating permits in subsection (c).

The OAQ intends to continue discussions with the U.S. EPA regarding the issues related to past construction permits. However the OAQ also believes that the Permit Shield condition B.14 (b) (1) & (2) establishes that the Title V permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits. Compliance with the conditions of the permit shall be deemed in compliance with any applicable requirements as of the date of the permit issuance for all the previous permits identified by the source and the OAQ during the course of this review.

Some rule cites have been added to the title of this Condition. The Condition has been revised to state that the requirements listed in the permit are those applicable at the time of permit issuance. The Condition has been re-numbered as B.13.

B.13 Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-20] [326 IAC 2-7-12]

-
- (a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. **The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.**

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

- (b) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits. All previously issued operating permits are superseded by this permit.
- (c) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, ~~including any term or condition from a previously issued construction or operation permit~~, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.
- (d) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.
- (e) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
 - (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
 - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
 - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
 - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (g) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
- (h) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]
- (i) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(7)]

Harrison Steel objects to Condition B.16. The term “deviation” is vague, confusing, and without legal authority. This Condition is also arbitrary and duplicative of record keeping and reporting requirements in Condition B.13 which requires reporting of emergencies and C.21 which requires the reporting of compliance monitoring data, including deviations. Therefore, Harrison Steel recommends that Condition B.16 be revised as shown below.

B.16 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

- (a) ~~Deviations from any permit requirements~~ **term identified as an emission limitation or standard in Section D** (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported **quarterly** to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

~~within ten (10) calendar days from the date of the discovery of the deviation, except for the failure to perform the monitoring or record the information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.~~

- (b) A deviation is an exceedance of a permit **emission** limitation ~~or a failure to comply with a requirement of the permit or a rule.~~ It does not include:
- (1) An excursion from compliance monitoring parameters as identified in Section D of this permit ~~unless tied to an applicable rule or limit;~~ or
 - (2) An emergency as defined in 326 IAC 2-7-1(12); or
 - (3) Failure to implement elements of the Preventive Maintenance Plan unless such failure has caused or contributed to a deviation.
- ~~A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred is a deviation.~~
- (c) Written notification shall be submitted on the attached Emergency/Deviation Occurrence Reporting Form or its substantial equivalent. The notification does not need to be certified by the “responsible official” as defined by 326 IAC 2-7-1(34).
- (d) Proper notice submittal under 326 IAC 2-7-16 satisfies the requirement of this subsection.

Response #16

The term “deviation” is specifically defined in the permit Condition. The term “deviation” is also used in the rule 326 IAC 2-7-5(C) which requires reporting of deviations. The suggested change to subsection (a) has not been made because all deviations from all permit requirements must be reported. Condition B.16 (re-numbered B.15) now requires deviations to be reported quarterly instead of within 10 days.

There is no longer an exemption for reporting deviations which are less than 5% of the required data. Emergencies are to be reported according to Condition B.13. If the emergency causes a deviation, then it is also required to be reported in the Quarterly Deviation and Compliance Monitoring Report.

Regarding Condition C.21 (General Reporting Requirements), the Semi-Annual Compliance Monitoring Report is now the Quarterly Deviation and Compliance Monitoring Report. References to the emergency report have been removed. Changes in (d) clarify that the report does need to be certified by the responsible official. This change is also reflected in all the D sections and the reporting forms. EPA has also requested this change (regarding certifications). The changes to Conditions B.16 (now renumbered B.15) and C.21 (now re-numbered C.22) are shown below

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance ~~Branch~~ **Data Section**, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

~~within ten (10) calendar days from the date of the discovery of the deviation using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. except for the failure to perform the monitoring or record the information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report.~~

The notification by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:
- (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or
 - ~~(2) An emergency as defined in 326 IAC 2-7-1(12); or~~
 - ~~(3)~~**(2)** Failure to implement elements of the Preventive Maintenance Plan unless such failure has caused or contributed to a deviation.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred is a deviation.

Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.

- ~~(c) Written notification shall be submitted on the attached Emergency/Deviation Occurrence Reporting Form or its substantial equivalent. The notification does not need to be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).~~
- ~~(d) Proper notice submittal under 326 IAC 2-7-16 satisfies the requirement of this subsection.~~

C.22 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

- (a) ~~To affirm that the source has met all the compliance monitoring requirements stated in this permit~~ The source shall submit **a the attached Semi-Annual Quarterly Deviation and Compliance Monitoring Report or its equivalent.** Any deviation from ~~the permit requirements, and, the date(s) of each deviation, the cause of the deviation, and the response steps taken~~ must be reported. **This report shall be submitted within thirty (30) days of the end of the reporting period.** The **Quarterly Deviation and Compliance Monitoring Report** shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) Unless otherwise specified in this permit, any quarterly report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The reports do ~~not~~ require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- ~~(e) All instances of deviations as described in Section B-Deviations from Permit Requirements Conditions must be clearly identified in such reports. The Emergency/Deviation Occurrence Report does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).~~
- ~~(f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.~~
- ~~(g)~~**(e)** The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are

based on calendar years.

Comment #17

Harrison Steel objects to Condition B.21. As drafted, this Condition goes beyond the authority of IDEM under the applicable regulations. Accordingly, Harrison Steel recommends the following changes to the condition.

B.21 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b), (c), or (e), without a prior permit revision, if each of the following conditions is met:
 - (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
 - (2) ~~Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;~~
- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint terms of 326 IAC 2-7-20(a) ~~and the following additional conditions:~~
 - (1) ~~The permit shield, described in 326 IAC 2-7-15, shall not apply to any change made under 326 IAC 2-7-20(b).~~

Response #17

Subsection (a)(2) has not been deleted because, pursuant to 326 IAC 2-7-10.5, any required preconstruction approvals must be obtained prior to making changes at the source. Subsection (b)(1) has been deleted to make the Condition consistent with the language in the rule. The Subsection (b) has also been reorganized as follows. The Condition has been re-numbered as B.20.

B.20 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). ~~and the following additional conditions:~~
 - (1) ~~The permit shield, described in 326 IAC 2-7-15, shall not apply to any change made under 326 IAC 2-7-20(b).~~
 - (2) For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:
 - (A)(1) A brief description of the change within the source;
 - (B)(2) The date on which the change will occur;
 - (C)(3) Any change in emissions; and

~~(D)~~(4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Comment #18

Harrison Steel objects to Condition B.23 (Inspection and Entry). As drafted, the Condition does not reference a need to follow site safety requirements. Accordingly, Harrison Steel recommends that the phrase "subject to site safety requirements" be added just prior to paragraph (a).

Response #18

IDEM is authorized by IC 13-14-2-2 to have a designated agent, upon presentation of proper credentials, enter upon any private or public property to inspect for and investigate possible violations of IDEM laws or any rule promulgated thereunder. The right of the Department to enter and inspect is mandated by statute and is not subject to preconditions of the property owner. However, inspectors have been instructed to utilize health and safety equipment while on site, including but not limited to, hard hats, safety glasses, coveralls, boots, and respirators.

The following changes have been made to the condition in order to have the Condition be consistent with the language in the rule. The Condition has been re-numbered as B.22.

B.22 Inspection and Entry [326 IAC 2-7-6(2)] [IC 13-14-2-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, ~~at reasonable times,~~ any records that must be kept under the conditions of this permit;
- (c) Inspect, ~~at reasonable times,~~ any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, ~~at reasonable times,~~ substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.
~~[326 IAC 2-7-6(6)]~~

Section C

Comment #19

Harrison Steel objects to Condition C.8 (Stack Height). The Condition should be revised to indicate that certain referenced citations are not federally enforceable.

Response #19

IDEM agrees. The revised Condition is shown below.

C.8 **Stack Height [326 IAC 1-7]**

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. **The provisions of 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4(d)(3), (e), and (f), and 326 IAC 1-7-5(d) are not federally enforceable.**

Comment #20

Harrison Steel objects to Condition C.9 (Asbestos Abatement Projects). Subsection (f) should be revised to accurately state the law. The requirement that the inspector be accredited is not federally enforceable.

Response #20

The requirement that the inspector be accredited is federally enforceable; however, IDEM agrees that the requirement for the inspector to be accredited by Indiana is not federally enforceable. The Condition has been changed to clarify this. The rule cite 40 CFR 61, Subpart M, has replaced the rule cite 40 CFR 61.140 in the title of this Condition. Changes are shown below.

C.9 **Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] ~~[40 CFR 61.140]~~ [40 CFR 61, Subpart M]**

- (f) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable; **however, the requirement that the inspector be accredited by Indiana is not federally enforceable.**

Comment #21

Harrison Steel objects to Condition C.10 (Performance Testing). As drafted, the Condition is confusing and vague. Harrison Steel recommends the follow change to subsection (a) in order to clarify the intent and purpose of the requirements.

C.10 **Performance Testing [326 IAC 3-6]**

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- (a) All testing **expressly required by Section D** shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAM.

Response #21

IDEM does not agree to make the requested change because there may be times when IDEM requires testing in addition to that which is required by Sections D of the permit. Testing may also be required by a new rule which may become applicable during the permit term, but after the permit is issued. In which case, any testing completed pursuant to that rule, must also comply with the requirements of this Condition. IDEM has made the following changes to the Condition for clarification.

C.10 Performance Testing [326 IAC 3-6]

- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ ~~within~~ **not later than** forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation ~~within~~ **not later than** five (5) days prior to the end of the initial forty-five (45) day period.

Comment #22

Harrison Steel objects to Condition C.11 (Compliance Requirements). The Condition is confusing and goes beyond the authority granted under the referenced citation. Therefore, Harrison Steel recommends that this Condition be deleted.

Response #22

The language in this condition is the exact language in 326 IAC 2-1.1-11. There has been no change to this Condition.

Comment #23

Harrison Steel objects to Condition C.12 (Compliance Monitoring). The Permit must recognize the need for a shakedown period for new emission units. Therefore, Harrison Steel recommends that the Condition be revised such that the monitoring and record keeping requirements for new units shall commence twenty (20) days after start up to provide a shakedown period.

Response #23

Since 326 IAC 3-6-3 requires that a facility operate at 95% of its maximum capacity or higher during a stack test, shakedown periods are normally given prior to stack testing, in order to allow the facility time to bring the new unit up to full capacity. Although testing is required to be performed at near maximum capacity, compliance monitoring and record keeping are required to be performed at all times that the unit is operating. Therefore, it is not necessary to allow a shakedown period for new units prior to commencing monitoring and record keeping requirements.

There are times when compliance monitoring is required by a new MACT rule, that the source may not have to comply with until sometime after the date of issuance of the Title V permit. Therefore, language has been added to clarify that the permit will specify (in Sections D) if the compliance monitoring doesn't have to start within 90 days. The same idea applies to new units, if there is a MACT applicable, but the source has 3 years to comply with it, IDEM would include the compliance monitoring requirements in the permit, but state in Section D that the monitoring would not have to begin until three years after the effective date of the MACT. In order to allow for this possibility, Condition C.12 (Compliance Monitoring) has been changed as follows.

C.12 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

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Compliance Branch, Office of Air Quality
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Indianapolis, Indiana 46206-6015

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.

Comment #24

Harrison Steel objects to Condition C.13 (Monitoring Methods) because it is duplicative of the requirements of Condition C.10 (Performance Testing). Therefore, Harrison Steel recommends the Condition be deleted in its entirety.

Response #24

Condition C.10 only addresses testing requirements; it does not address compliance monitoring requirements. The Condition has not been deleted. Rule cites have been added as shown below. The Condition has been renumbered C.14.

C.14 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, **40 CFR 60 Appendix B, 40 CFR 63**, or other approved methods as specified in this permit.

Comment #25

Harrison Steel objects to Condition C.14 (Pressure Gauge and Other Instrument Specifications) because it is overly restrictive and does not allow Harrison Steel the flexibility of using alternative pressure gauges that will adequately ensure compliance with the Permit requirements. Accordingly, Harrison Steel requests that the Condition be revised as shown below.

C.14	Pressure Gauge and Other Instrument Specifications
(a)	Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ($\pm 2\%$) of full scale reading.
(b)	Whenever a condition in this permit requires the measurement of a temperature, flow rate, or pH level, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ($\pm 2\%$) of full scale reading.
(c)	<u>The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.</u>

Response #25

IDEM agrees to make the requested change. Additional rule cites have also been added to the title as shown below. The Condition has been renumbered C.15.

C.15	Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]
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Comment #26

Harrison Steel objects to Subsection (c) of Condition C.15 (Emergency Reduction Plans) because it is subjective and open to interpretation and confusion. Accordingly, Harrison Steel recommends that this Condition be revised as shown below.

C.15	Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3] Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):
(c)	If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.

Response #26

The language in Subsection (c) of the Condition is the exact language contained in the rule 326 IAC 1-5-2. There has been no change to this Condition. The Condition has been renumbered C.16.

Comment #27

Harrison Steel objects to Condition C.17 (Compliance Monitoring Plan - Failure to Take Response Steps). First, the language in this Condition is duplicative of language contained in Section D of the Permit, which spells out clearly the compliance monitoring requirements. Restating those requirements here is duplicative and unnecessary and could result in multiple violations occurring from a single act or omission. Further, the language of this Condition goes beyond IDEM's authority in the referenced citations. Therefore, Harrison Steel recommends that this Condition be revised as shown below.

C.17 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-7-5][326 IAC 2-7-6]

-
- (a) The Permittee is required to implement a compliance monitoring plan that includes the following: ~~to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. The compliance monitoring plan can be either an entirely new document, consist in whole information contained in other documents, or consist of a combination of new information and information contained in other documents. If the compliance monitoring plan incorporates by reference information contained in other documents, the Permittee shall identify as part of the compliance monitoring plan the documents in which the information is found. The elements of the compliance monitoring plan are:~~
- (1) ~~This condition;~~
 - (2) ~~The Compliance Determination Requirements in Section D of this permit;~~
 - (3) ~~The Compliance Monitoring Requirements in Section D of this permit;~~
 - (4) ~~The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and~~
 - (5) ~~A Compliance Response Plan (GRP) for each compliance monitoring condition of this permit. GRP's shall be submitted to IDEM, OAQ upon request and shall be subject to review and approval by IDEM, OAQ. The GRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of:~~
 - (A) ~~Reasonable response steps that may be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and~~
 - (B) ~~A time schedule for taking reasonable response steps including a~~

~~schedule for devising additional response steps for situations that may not have been predicted.~~

- (b) ~~For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to take reasonable response steps shall constitute a violation of the permit.~~
- (c) Upon ~~investigation of~~ investigating a compliance monitoring excursion, the Permittee is excused from taking further response steps for any of the following reasons:
 - (1) A false reading occurs due to the malfunction of the monitoring equipment. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied or;
 - (3) An automatic measurement was taken when the process was not operating; or
 - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) ~~Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.~~
- (e) ~~All~~ The monitoring required set forth in Section D ~~shall be performed at all times is required to be performed when~~ the equipment is operating. ~~If monitoring is required by Section D and the equipment is not operating, then the Permittee may record the fact that the equipment is not operating or perform the required monitoring.~~
- (f) ~~If for reasons beyond its control, the Permittee fails to perform the monitoring and record keeping as required by Section D, then the reasons for this must be recorded.~~
 - (1) ~~At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent of the operating time in any quarter.~~
 - (2) ~~Temporary, unscheduled unavailability of qualified staff shall be considered a valid reason for failure to perform the monitoring or record keeping requirements in Section D.~~

At its discretion, IDEM may excuse the Permittee's failure to perform the monitoring and record keeping as required by Section D, if the Permittee provides adequate justification and documents that such failures do not exceed five percent (5%) of the operating time in any quarter. Temporary, unscheduled unavailability of qualified staff shall be considered a valid reason for failure to perform the monitoring or record keeping requirements in Section D.

Response #27

Sections D of the Permit include compliance monitoring conditions, but do not include any requirements to have a compliance monitoring plan. Therefore, the requirements of this Condition are not duplicative of the compliance monitoring requirements in Sections D of the Permit.

IDEM has worked with members of the Clean Air Act Advisory Council's Permit Committee, Indiana Manufacturing Association, Indiana Chamber of Commerce and individual applicants regarding the Preventive Maintenance Plan, the Compliance Monitoring Plan and the Compliance Response Plan. IDEM has clarified the preventive maintenance requirements by working with sources on draft language over the past two years. The plans are fully supported by rules promulgated by the Air Pollution Control Board. The plans are the mechanism each Permittee will use to verify continuous compliance with its permit and the applicable rules and will form the basis for each Permittee's Annual Compliance Certification. Each Permittee's ability to verify continuous compliance with its air pollution control requirements is a central goal of the Title V and FESOP permit programs.

The regulatory authority for and the essential elements of a compliance monitoring plan were clarified in IDEM's Compliance Monitoring Guidance, in May 1996. IDEM originally placed all the preventive maintenance requirements in the permit section titled "Preventive Maintenance Plan." Under that section the Permittee's Preventive Maintenance Plan(PMP) had to set out requirements for the inspection and maintenance of equipment both on a routine basis and in response to monitoring. Routine maintenance was a set schedule of inspections and maintenance of the equipment. The second was inspection and maintenance in response to monitoring that showed that the equipment was not operating in its normal range. This monitoring would indicate that maintenance was required to prevent the exceedance of an emission limit or other permit requirement. The maintenance plan was to set out the "corrective actions" that the Permittee would take in the event an inspection indicated an "out of specification situation", and also set out the time frame for taking the corrective action. In addition, the PMP had to included a schedule for devising additional corrective actions for out of compliance situations that the source had not predicted in the PMP. All these plans, actions and schedules were part of the Preventive Maintenance Plan, with the purpose of maintaining the Permittee's equipment so that an exceedance of an emission limit or violation of other permit requirements could be prevented.

After issuing the first draft Title V permits on public notice in July of 1997, IDEM received comments from members of the regulated community regarding many of the draft permit terms, including the PMP requirements. One suggestion was that the corrective action and related schedule requirements be removed from the PMP requirement and placed into some other requirement in the permit. This suggestion was based, in some part, on the desire that a Permittee's maintenance staff handle the routine maintenance of the equipment, and a Permittee's environmental compliance and engineering staff handle the compliance monitoring and steps taken in reaction to an indication that the facility required maintenance to prevent an environmental problem.

IDEM carefully considered this suggestion and agreed to separate the "corrective actions" and related schedule requirements from the PMP. These requirements were placed into a separate requirement, which IDEM named the Compliance Response Plan (CRP). In response to another comment, IDEM changed the name of the "corrective actions" to "response steps." That is how the present CRP requirements became separated from the PMP requirement, and acquired their distinctive nomenclature.

Other comments sought clarification on whether the failure to follow the PMP was violation of the permit. The concern was that a Permittee's PMP might call for the Permittee to have, for example, three "widget" replacement parts in inventory. If one widgets was taken from inventory for use in maintenance, then the Permittee might be in violation of the PMP, since there were no longer three widgets in inventory, as required by the PMP. Comments also expressed a view that if a maintenance employee was unexpectedly delayed in making the inspection under the PMP's schedule, for example by the employee's sudden illness, another permit violation could occur, even though the equipment was still functioning properly.

IDEM considered the comments and revised the PMP requirement so that if the Permittee fails to follow its PMP, a permit violation will occur only if the lack of proper maintenance causes or contributes to a violation of any limitation on emissions or potential to emit. This was also the second basis for separating the compliance maintenance response steps from the PMP and placing them in the Compliance Response Plan (CRP). Unlike the PMP, the Permittee must conduct the required monitoring and take any response steps as set out in the CRP (unless otherwise excused) or a permit violation will occur.

The Compliance Monitoring Plan is made up of the PMP, the CRP, the compliance monitoring and compliance determination requirements in section D of the permit, and the record keeping and reporting requirements in sections C and D. IDEM decided to list all these requirements under this new name, the Compliance Monitoring Plan (CMP), to distinguish them from the PMP requirements. The section D provisions set out which facilities must comply with the CMP requirement. The authority for the CMP provisions is found at 326 IAC 2-7-5(1), 2-7-5(3), 2-7-5(13), 2-7-6(1), 1-6-3 and 1-6-5.

Additionally, the Compliance Monitoring Plan (CMP) is consistent with IDEM's Compliance Monitoring Guidance released in May of 1996. The guidance discusses corrective action plans setting out the steps to take when compliance monitoring shows an out of range reading (Guidance, page 13). Some of the terminology has changed, as a result of comments from regulated sources, but the requirements in the permit do not conflict with the guidance.

The following changes have been made to Condition C.17, now renumbered C.18, (Compliance Monitoring Plan Failure to Take Response Steps).

C.18 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

- (a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. The compliance monitoring plan can be either an entirely new document, consist in whole of information contained in other documents, or consist of a combination of new information and information contained in other documents. If the compliance monitoring plan incorporates by reference information contained in other documents, the Permittee shall identify as part of the compliance monitoring plan the documents in which the information is found.

The elements of the compliance monitoring plan are:

- (1) This condition;
 - (2) The Compliance Determination Requirements in Section D of this permit;
 - (3) The Compliance Monitoring Requirements in Section D of this permit;
 - (4) The Record Keeping and Reporting Requirements in Section C (~~Monitoring Data Availability~~; General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and
 - (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAQ upon request and shall be subject to review and approval by IDEM, OAQ. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of:
 - (A) Reasonable response steps that may be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and
 - (B) A time schedule for taking reasonable response steps including a schedule for devising additional response steps for situations that may not have been predicted.
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to take reasonable response steps ~~shall~~ **may** constitute a violation of the permit.
- (c) Upon investigation of a compliance monitoring excursion, the Permittee is excused from taking further response steps for any of the following reasons:
- (1) A false reading occurs due to the malfunction of the monitoring equipment. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.; ~~or~~
 - (3) An automatic measurement was taken when the process was not operating.; ~~or~~
 - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.

- (d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (e) All monitoring required in Section D shall be performed at all times the equipment is operating. If monitoring is required by Section D and the equipment is not operating, then the Permittee may record the fact that the equipment is not operating or perform the required monitoring.
- (f) ~~If for reasons beyond its control, the Permittee fails to perform the monitoring and record keeping as required by Section D, then the reasons for this must be recorded.~~
 - (1) ~~At its discretion, IDEM may excuse the Permittee's failure to perform the monitoring and record keeping as required by Section D, if the Permittee provides such failure providing adequate justification is documented and documents that such failures do not exceed five percent (5%) of the operating time in any quarter.~~
 - (2) Temporary, unscheduled unavailability of qualified staff shall be considered a valid reason for failure to perform the monitoring or record keeping requirements in Section D.

Comment #28

Harrison Steel objects to Condition C.18 (Actions Related to Noncompliance Demonstrated by a Stack Test). It is not necessary to submit "response actions" when the Condition already requires the Permittee to retest. Therefore, Harrison Steel recommends that the Condition be revised to only require response actions upon request.

Response #28

Retesting is only required within 120 days of receipt of the original test results; while response actions are required within 30 days. IDEM believes that if a source fails a stack test, the source should immediately take steps to correct the problem and in order to reduce emissions. IDEM has the authority for this Condition pursuant to 326 IAC 2-7-5 and 326 IAC 2-7-6(6). There has been no change to this Condition as a result of this comment.

Comment #29

Harrison Steel objects to Condition C.20 (General Record Keeping Requirements). Subsections (b) and (c) are without authority and impose obligations that are both unduly burdensome and unnecessary. Harrison Steel recommends that Subsections (b) and (c) be deleted.

Response #29

Subsections (b) and (c) have been removed because they are unnecessary. In Subsection (a), the word "monitoring" was removed because the condition applies to all record keeping. The word "reports" was added to clarify that the source must keep copies of those as well. Changes to the Condition are

shown below.

C.21 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]

(a) Records of all required ~~monitoring~~ data, **reports** and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

~~(b) Records of required monitoring information shall include, where applicable:~~

~~(1) The date, place, and time of sampling or measurements;~~

~~(2) The dates analyses were performed;~~

~~(3) The company or entity performing the analyses;~~

~~(4) The analytic techniques or methods used;~~

~~(5) The results of such analyses; and~~

~~(6) The operating conditions existing at the time of sampling or measurement.~~

~~(c) Support information shall include, where applicable:~~

~~(1) Copies of all reports required by this permit;~~

~~(2) All original strip chart recordings for continuous monitoring instrumentation;~~

~~(3) All calibration and maintenance records;~~

~~(4) Records of preventive maintenance.~~

~~(d)~~(b) **Unless otherwise specified in this permit**, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

Sections D

Comment #30

Harrison Steel objects to Condition D.2.6 (Testing Requirements) because it is overly burdensome. Baghouses DC4, DC5, and DC40 are similar units and testing only one of them, DC40 would provide results which would be representative of the other two units. Harrison Steel also requests that the PM and PM10 stack tests be repeated every 5 years instead of every 2.5 years as stated in the draft

permit. The melt rate capacity for each furnace is relatively small and the emission control technology is proven as an adequate means of controlling PM and PM10 emissions. Harrison Steel will be monitoring the visual emissions from the baghouses and the pressure drop across the baghouses and performing baghouse preventive maintenance inspections, so if problems do occur they will be identified and repaired. Accordingly, Harrison Steel requests the following changes to the Condition.

D.2.6 Testing Requirements [326 IAC 2-7-6(1),(6)] [40 CFR 60.275a][326 IAC 2-1.1-11]

No later than 180 days after issuance of this permit, the Permittee shall perform PM and PM10 testing using methods as approved by the Commissioner, in order to demonstrate compliance with conditions D.2.1 and D.2.2. PM and PM10 testing is required for baghouses DC4, DC5, and DC40. ~~PM10 testing is only required for baghouse DC40 controlling the electric arc furnace EAF4.~~ These tests shall be repeated at least once every ~~two and a half (2.5)~~ five (5) years from the date of a valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. PM10 includes filterable and condensable PM10.

Response #30

There are three electric arc furnaces, each controlled by a separate baghouse. Each of these furnaces has a high potential to emit PM and PM10 emissions. Additionally, the furnaces do not all have the same maximum capacity. The flow rates are different for each baghouse. Also, the design parameters are different for each baghouse. Therefore, IDEM cannot assume that stack testing results for one baghouse controlling one of the furnaces are representative of emissions from each of the other two baghouses. IDEM believes that a 2.5 year stack testing frequency is appropriate and necessary in order for the source to be able to certify continuous compliance with the permit. There has been no change to this Condition as a result of this comment.

Comment #31

Regarding Condition D.2.12, D.3.8, D.5.10, and D.6.10, the requirement to record the cleaning cycle frequency and differential pressure should be deleted. Harrison Steel would have to position someone at each baghouse to record the frequency and differential pressure when the baghouses are cleaned. If the visible emissions are normal and the pressure drop remains in the acceptable range, there is no need to record how often the baghouse goes through a cleaning cycle.

Response #31

In order for the baghouse to function properly, the baghouse cleaning cycle must operate properly; therefore, IDEM believes it is reasonable to require monitoring of the operation of the baghouse cleaning cycle. It is not IDEM's intent to require the source to position someone at the baghouse continuously to monitor the baghouse cleaning cycle; rather, the source should monitor the baghouse once per shift to ensure that the cleaning cycle is operating properly. For clarification purposes, Condition D.2.12 has been changed as shown below. Conditions D.3.8, D.5.10 (now renumbered D.5.9), and D.6.10 have all been changed similarly.

D.2.12 Record Keeping Requirements

- (a) In order to document compliance with Condition D.2.8, the Permittee shall maintain records of the visible emission notations of the each of the electric arc furnace stack exhausts once per shift.

- (b) In order to document compliance with condition D.2.9, the Permittee shall maintain records of the following operational parameters once per shift during normal operation when venting to the atmosphere:
 - (1) Inlet and outlet differential static pressure; and
 - (2) Cleaning cycle: ~~frequency and differential pressure~~ **operation.**

Comment #32

Regarding the unit description in Section D.3 and Condition D.3.3, please modify the description to indicate that the North Shakeout is controlled by two baghouses identified as DC2 and DC3.

Response #32

The requested change has been made.

Comment #33

Harrison Steel objects to Condition D.6.5 (Testing Requirements) because it is overly burdensome. Baghouses DC20, DC35, DC36, and DC39 are similar units and testing will yield similar results. Accordingly, Harrison Steel requests that only one of the baghouses be tested.

Response #33

All four (4) Baghouses control the south sand handling system, which has a maximum capacity of 200 tons of sand per hour. The potential PM and PM10 emissions from this facility are very high and the source has accepted stringent PM emission limits to avoid the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)). Each baghouse controls a different part of the sand system. Each baghouse has a different flow rate and different design specifications. Therefore, IDEM cannot assume that stack testing results for one baghouse controlling only part of the sand handling system, are representative of emissions from each of the other three (3) baghouses. Additionally, there is only a single PM emission limit for the entire sand handling system (all four baghouses combined); therefore compliance with the PM limit cannot be determined by testing only one of the baghouses. There has been no change to this Condition as a result of this comment.

Comment #34

Condition D.7.4 (Testing Requirements) requires VOC (TEA) testing on the acid scrubber controlling the Isocure core making machine. Harrison Steel objects to this Condition. The scrubber does not vent to the atmosphere; therefore, no testing should be required.

Response #34

Harrison Steel is relying on the operation of the acid scrubber in order to comply with emission limits to avoid the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)); therefore, IDEM believes it is reasonable and necessary to require stack testing of the scrubber emissions. Additionally, exhausting into the building does not assure that no VOC (TEA) will be emitted to the atmosphere. If TEA fumes were noticeable inside the building, the employees working in that area would be reasonably expected to open doors or windows to allow the room to clear. There has been no change to

this Condition as a result of this comment.

Comment #35

Stack testing is required for the electric arc furnaces, the sand handling system, the shotblasters, and the acid scrubber (conditions D.2.6, D.5.4, D.6.5, and D.7.4). If IDEM will not agree to Harrison Steel's request to test only representative baghouses for the furnaces and the sand handling system, and to delete the testing requirement for the acid scrubber, then Harrison Steel requests that the required stack tests be spread out throughout the five year permit term due to costs associated with completing all the testing. Harrison Steel proposes that the baghouses controlling the furnaces be tested during the first year, the baghouse controlling the shotblast machine be tested during the second year, the baghouses controlling the sand handling system be tested during the third year, and the scrubber be tested during the fourth year.

Response #35

Upon further review, IDEM believes it is not necessary to include a testing requirement for the shotblast machine. IDEM also agrees to spread out the remaining stack testing requirements as follows:

Facilities to Test	Pollutants	Time frame for Testing	Testing Frequency	Relevant Permit Condition
baghouses DC4, DC5, and DC40 controlling the three electric arc furnaces	PM and PM10	within 1 year after permit issuance	every 2.5 years	Condition D.2.6
baghouses DC20, DC35, DC36, and DC39 controlling the South sand handling system	PM	within 2 years after permit issuance	every 5 years	Condition D.6.5
acid scrubber controlling the Isocure core machine	VOC (TEA)	within 3 years after permit issuance	every 5 years	Condition D.7.4

Comment #36

Harrison Steel objects to the requirement to monitor the flow rate of the acid scrubber (Condition D.7.5) because there is no flow meter on this scrubber. Harrison Steel contends that monitoring and recording pH is the appropriate measure to determine compliance. Flow rate is not necessary to determine whether trouble shooting contingency and response steps are required when pH levels and pressure drops are available.

Response #36

Flow rate monitoring is necessary in order to ensure that there is adequate flow of scrubber liquid to

control the TEA emissions. Harrison Steel will have ninety (90) days from the date of issuance of this permit to begin the monitoring and record keeping required by this permit; therefore, Harrison Steel will have adequate time to install a flow meter on the acid scrubber. Condition C.12 also provides for a procedure Harrison Steel can follow in order to request an extension of time to install the flow meter on the acid scrubber, in case Harrison Steel believes they would need such an extension.

Comment #37

Harrison Steel objects to all references in Sections D to monitoring and recording data on a once per shift basis. Monitoring data once per shift will impose an unnecessary and burdensome economic impact on Harrison Steel because Harrison Steel would have to hire at least one or two more employees to conduct this monitoring during all shifts. Moreover, Harrison Steel objects to this "once per shift" frequency because Harrison Steel has shifts which may be of an 8 hour duration or a 12 hour duration, thus during some shifts emissions will not be visible. Harrison Steel recommends that the monitoring and recording in all the compliance monitoring conditions be conducted once per day instead of once per shift.

Response #37

Compliance monitoring conditions such as the requirement to perform visible emission notations and parametric monitoring, are required in order to demonstrate continuous compliance with the permit requirements. Visible emission notations are used to indicate compliance with 326 IAC 5-1, 326 IAC 6-3-2 and the PM limitations required to render 326 IAC 2-2 (PSD) not applicable. Since bag failure can occur suddenly and without warning, possibly causing a violation of 326 IAC 5-1 or 326 IAC 6-3-2, the OAM does not believe that daily notations and monitoring would be sufficient for the Permittee to demonstrate continuous compliance. The OAM believes that once per shift visible emission notations are reasonable and necessary in order to demonstrate continuous compliance. The Conditions requiring visible emission notations all require the notations "once per shift during daylight operations." IDEM realizes that there may be times during the winter months that visible emission notations can only be done two out of three shifts per day. There have been no changes to the permit as a result of this comment.

On March 9, 2001, Harrison Steel Castings Company submitted additional comments on the proposed Part 70 permit. The summary of the comments and responses are as follows (new permit text is shown in bold and deleted text is shown with a line through it):

Comment #1

The pouring and cooling operations identified as POUR have a capacity of 20 tons of metal per hour and 183.68 tons of sand per hour. Please make the appropriate changes in Sections A.2 and D.3 of the permit.

Response #1

IDEM has made the appropriate changes in Sections A.2 and D.3 of the permit. Additionally, IDEM has modified Condition D.3.1(a) and (b) to account for the modified process weight rate. The calculations in Appendix A have also been modified appropriately.

The following changes have been made in both Section A.2 and the description box of Section D.3.

The pouring, cooling, and shakeout operations consisting of the following:

- (a) One (1) pouring/casting operation, identified as POUR, constructed in or before 1951 with a maximum capacity of ~~40~~ **20** tons of melted steel per hour and ~~24.32~~ **183.68** tons of sand per hour with emissions uncontrolled.
- (b) One (1) casting cooling operation, identified as POUR, constructed in or before 1951 with a maximum capacity of ~~40~~ **20** tons of melted steel per hour and ~~24.32~~ **183.68** tons of sand per hour with emissions uncontrolled.

The following changes have been made to Condition D.3.1.

D.3.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the following conditions shall apply:

- (a) The allowable PM emission rate from the pouring/casting operation identified as POUR shall not exceed ~~41.2~~ **58.7** pounds per hour when operating at a process weight rate of ~~34.2~~ **203.68** tons of metal and sand per hour.
- (b) The allowable PM emission rate from the casting cooling operation identified as POUR shall not exceed ~~41.2~~ **58.7** pounds per hour when operating at a process weight rate of ~~34.2~~ **203.68** tons of metal and sand per hour.

Comment #2

The last sentence of B.11(c) is duplicative of the last sentence of B.11(a) and should be deleted.

Response #2

IDEM agrees. The requested change has been made.

B.11 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an

additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The PMP and the PMP extension notification do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. ~~The PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).~~
- (d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

Comment #3

Condition D.2.8 states that visible emissions notations shall be performed once per shift during normal daylight operations, but the corresponding record keeping requirement only says "once per shift." To avoid confusion of what is actually required, please add the phrase "during normal daylight operations" to the record keeping requirement in Condition D.2.12 also.

Response #3

Visible emission notations are only required once per shift during normal daylight operations, but the record keeping is required every shift. If Harrison Steel cannot perform the required visible emission notations because it is too dark during one particular shift, they are required to record that it was too dark that shift to perform the visible emission notations. Therefore, record keeping should be completed every shift, even if visible emission notations cannot be performed every shift. There has been no change to the permit as a result of this comment.

Comment #4

Please delete the word "the" between "of" and "each" in Condition D.2.12(a).

Response #4

The requested change has been made.

D.2.12 Record Keeping Requirements

- (a) In order to document compliance with Condition D.2.8, the Permittee shall maintain records of the visible emission notations of ~~the~~ each of the electric arc furnace stack exhausts once per shift.

On August 24, 2001, Harrison Steel Castings Company submitted additional comments on the proposed Part 70 permit. The summary of the comments and responses are as follows (new permit text is shown in bold and deleted text is shown with a line through it):

Comment #1

Regarding Condition D.5.6, please change the pressure drop range for baghouses DC11 and DC30 to 0.2 to 6 inches of water.

Response #1

The requested change has been made, as shown below.

D.5.6 Parametric Monitoring

The Permittee shall record the total static pressure drop across each of the baghouses used in conjunction with the shot blasting machines, at least once per shift when the shot blasting machines are in operation when venting to the atmosphere. **Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across baghouses DC11 and DC30 shall be maintained within the range of 0.2 - 6.0 inches of water or a range established during the latest stack test.** Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across each **of the other** baghouses **listed in this section** shall be maintained within the range of 2.0 - 8.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for ~~this~~ **these** units shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C -Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

Upon further review, the OAQ has decided to make the following changes to the permit.

Front Page

- (1) The expiration has been added to the signature box. The expiration is exactly 5 years after the issuance date.

Operation Permit No.: T045-6002-00002

Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: Expiration Date:
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Section A

- (1) The following rule cite has been added to A.1 (General Information). The rule cite includes the definition of a major source in 326 IAC 2-7. Also, in order to reduce the possibility for administrative amendments to the permit, IDEM is no longer going to include the phone number of the contact person.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] **[326 IAC 2-7-1(22)]**

The Permittee owns and operates a stationary steel and ductile iron castings plant.

Responsible Official:	G. Edward Curtis
Source Address:	900 North Mound Street, Attica, Indiana 47918
Mailing Address:	P.O. Box 60, Attica, Indiana
Phone Number:	765-762-2484
SIC Code:	3325, 3321
County Location:	Fountain County
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD; Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

Section B

- (1) In Condition B.3 (Permit Term), language has been added to clarify that amendments, revisions or modifications do not extend the expiration date of the permit. The expiration date will always be 5 years from the issuance date of the original permit. The expiration date will now be typed in the signature box as well.

B.3 Permit Term [326 IAC 2-7-5(2)]

This permit is issued for a fixed term of five (5) years from the ~~effective~~ **original** date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. **Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.**

- (2) The condition B.8, now re-numbered B.7 (Duty to Supplement and Provide Information) has been reworded to match the language in the rule.

B.7 Duty to Supplement and Provide Information [326 IAC 2-7-4(b)] [326 IAC 2-7-5(6)(E)] **[326 IAC 2-7-6(6)]**

- (a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly

submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). **Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the U. S. EPA along with a claim of confidentiality. [326 IAC 2-7-5(6)(E)]**
 - (c) ~~Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit. The Permittee may include a claim of confidentiality in accordance with 326 IAC 17. If requested by IDEM, OAQ, or the U.S. EPA, to~~ **When** furnishing copies of requested records directly to U. S. EPA, ~~then the Permittee must furnish record directly to the U. S. EPA.~~ the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.
- (3) Regarding Condition B.13, now renumbered as B.12, (Emergency Provisions), a reference to the Emergency Occurrence Report Form has been added to B.12(b)(5). The emergency form is for emergencies only , and is no longer an emergency and deviation form. All deviations will now be reported on the Quarterly Deviation and Compliance Monitoring Report. In paragraph (d) part of the first sentence has been deleted. For all Title V sources, the malfunction rule has been superseded by the emergency rule. In paragraph (f) "compliance" has been changed to "accordance".

B.12 Emergency Provisions [326 IAC 2-7-16]

- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
 - (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or
Telephone Number: 317-233-5674 (ask for Compliance Section)
Facsimile Number: 317-233-5967

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted **the attached Emergency Occurrence Report Form or its equivalent notice**, either ~~in writing by mail~~ or facsimile, ~~of the emergency~~ to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions) ~~for sources subject to this rule after the effective date of this rule.~~ This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in **compliance accordance** with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.

- (4) Condition B.19, now re-numbered B.18 (Permit Amendment or Modification) has been revised to clarify that 326 IAC 2-7-4(f) requires all applications to be certified by the responsible official. EPA has also requested this change.

B.18 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "responsible official" as defined by 326 IAC 2-7-1(34) ~~only if a certification is required by the terms of the applicable rule.~~

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

- (5) Regarding Condition B.22, now renumbered B.21, (Source Modification Requirement), 326 IAC 2 has been added to make the condition more complete. The language "applicable provisions" has been removed because it is unnecessary.

B.21 Source Modification Requirement [326 IAC 2] [326 IAC 2-7-10.5]

A modification, construction, or reconstruction is governed by the applicable provisions of **326 IAC 2 and** 326 IAC 2-7-10.5.

- (6) B.24, now renumbered B.23 (Transfer of Ownership or Operational Control) has been revised to clarify that 326 IAC 2-7-4(f) requires all applications to be certified by the responsible official. EPA has also requested this change.

B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The application which shall be submitted by the Permittee does ~~not~~ require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

- (7) The following rule cite has been added to Subsection (a) of Condition B.25, now renumbered B.24 (Annual Fee Payment).

B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)]

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. **Pursuant 326 IAC 2-7-19(b)**, if the Permittee does not receive a bill from IDEM, OAQ, the applicable fee is due April 1 of each year.

- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.

- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAQ, Technical Support and Modeling Section), to determine the appropriate permit fee.

Section C

- (1) The following revisions were made to Condition C.7 (Operation of Equipment) to clarify the condition.

C.7 Operation of Equipment [326 IAC 2-7-6(6)]

Except as otherwise provided **by statute, rule, or** in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

- (2) The following Condition has been added to Section C of the permit. All subsequent Conditions in Section C have been renumbered appropriately.

C.13 Maintenance of Emission Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

- (a) **In the event that a breakdown of the emission monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less often than once an hour until such time as the continuous monitor is back in operation.**
- (b) **The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.**

- (3) The following changes have been made to Condition C.16, now renumbered C.17 (Risk Management Plan).

C.17 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

- (a) A compliance schedule for meeting the requirements of 40 CFR 68 ~~by the date provided in 40 CFR 68.10(a);~~ or
- (b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP); and
- (c) A verification to IDEM, OAQ, that a RMP or a revised plan was prepared and

submitted as required by 40 CFR 68.

All documents submitted pursuant to this condition shall include the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

- (4) Regarding Condition C.19, now renumbered C.20 (Emission Statement), the word “estimated” was added to (a)(1) and (a)(2) because that is how 326 IAC 2-6 describes emissions.

C.20 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)]
[326 IAC 2-6]

(a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that must be received by July 1 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual emission statement shall meet the following requirements:

- (1) Indicate **estimated** actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);
- (2) Indicate **estimated** actual emissions of other regulated pollutants (as defined by 326 IAC 2-7-1) from the source, for purposes of Part 70 fee assessment.

Sections D

- (1) The following statement has been added to the compliance monitoring conditions in the various D sections of the permit. The affected Conditions are D.2.8 (Visible Emissions Notations), D.2.9 (Parametric Monitoring), D.2.11 (Broken or Failed Bag Detection), D.3.4 (Visible Emissions Notations), D.3.5 (Parametric Monitoring), D.3.7 (Broken or Failed Bag Detection), D.5.6, now renumbered D.5.5 (Visible Emissions Notations), D.5.7, now renumbered D.5.6 (Parametric Monitoring), D.5.9, now renumbered D.5.8 (Broken or Failed Bag Detection), D.6.6 (Visible Emissions Notations), D.6.7 (Parametric Monitoring), D.6.9 (Broken or Failed Bag Detection), D.7.5 (Parametric Monitoring), and D.7.7 (Scrubber Failure Detection),

Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

- (2) For clarification, the following changes have been made to Conditions D.2.11, D.3.7, D.5.9 (now renumbered D.5.8), and D.6.9 (Broken or Failed Bag Detection).

D.2.11 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) **For multi-compartment units**, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. **Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions).** Within eight (8) **business** hours of the determination of failure, response steps according to the timetable described in

the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) **business** hours of discovery of the failure and shall include a timetable for completion. ~~Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).~~ **Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.**

- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

- (3) For clarification purposes, the following changes have been made to Condition D.2.7.

D.2.7 **Particulate Matter**

In order to comply with the requirements of Conditions D.2.1 and D.2.2, the following conditions shall apply:

- (a) The baghouses DC4 and DC38 for PM and PM10 control shall be in operation at all times when the electric arc furnace EAF2 is in operation.
- (b) The baghouses DC5 and DC42 for PM and PM10 control shall be in operation at all times when the electric arc furnace EAF3 is in operation.
- (c) The baghouses DC40 and DC42 for PM and PM10 control shall be in operation at all times when the electric arc furnace EAF4 is in operation.
- (d) The baghouses DC42 and DC38 for PM and PM10 control shall be in operation at all times while oxygen lancing is conducted.

- (4) For clarification purposes, the following changes have been made to Condition D.3.3. The following also incorporates the change requested by the applicant in Comment #2.

D.3.3 **Particulate Matter**

In order to comply with the requirements of Condition D.3.1, the following conditions shall apply:

- (a) The baghouses, DC2 **and DC3**, for PM and PM10 control shall be in operation at all times when the North Shakeout system is in operation.
- (b) The baghouses DC12 and DC9 for PM and PM10 control shall be in operation at all times when the South Shakeout system is in operation.

- (5) For clarification purposes, the following changes have been made to Condition D.5.4.

D.5.5 Particulate Matter

In order to comply with the requirements of Conditions D.5.1 and D.5.2, the following conditions shall apply:

- (a) The baghouse, DC16, for PM and PM10 control shall be in operation at all times when the L3/4-NTT shot blast machine is in operation.
- (b) The baghouse, DC18, for PM and PM10 control shall be in operation at all times when the L3/4-STT shot blast machine is in operation.
- (c) The baghouse, DC7, for PM and PM10 control shall be in operation at all times when the Nelle Belle shot blast machine is in operation.
- (d) The baghouse, DC17, for PM and PM10 control shall be in operation at all time when the Wheelabrator Frye shot blast machine is in operation.
- (e) The baghouse, DC30, for PM and PM10 control shall be in operation at all times when the LN3-Rm shot blast machine is in operation.
- (f) The baghouse, DC28, for PM and PM10 control shall be in operation at all times when the LN5-SRm shot blast machine is in operation.
- (g) The baghouse, DC11, for PM and PM10 control shall be in operation at all times when the LN5-N shot blast machine is in operation.
- (h) The baghouse, DC23, for PM and PM10 control shall be in operation at all times when the LN2-N shot blast machine is in operation.
- (i) The baghouse, DC10, for PM and PM10 control shall be in operation at all times when the LN1-TMBL shot blast machine is in operation.
- (j) The baghouse, DC24, for PM and PM10 control shall be in operation at all times when the LN6-TT shot blast machine is in operation.
- (k) The baghouse, DC21, for PM and PM10 control shall be in operation at all times when the #18 Monorail shot blast machine is in operation.
- (l) The baghouse, DC33, for PM and PM10 control shall be in operation at all times when the LN2-S Rm shot blast machine is in operation.
- (m) The baghouse, DC6, shall be in operation at all times when the Chill Tmbl and Chill Cbnt shot blast machines are in operation.

(6) For clarification purposes, the following changes have been made to Condition D.6.4.

D.6.4 Particulate Matter

In order to comply with the requirements of Conditions D.6.1 and D.6.2, the following conditions shall apply:

- (a) The baghouse, DC41, for PM and PM10 control shall be in operation at all times

when the North Sand Handling System is in operation.

- (b) The baghouses DC20, DC35, DC36, and DC39 for PM and PM10 control shall be in operation at all times when the South Sand Handling System is in operation.

(7) For clarification purposes, the following changes have been made to Condition D.7.3.

D.7.3 VOC Control

In order to comply with the requirements of Condition D.7.1, the ~~The scrubber for~~
VOC (TEA) emissions control shall be in operation at all times when the Isocure core
machine is in operation.

- (8) Harrison Steel received a PSD Significant Source Modification to construct and operate a new mold line at their existing plant. The conditions of that modification have been incorporated into the Part 70 permit. New Conditions D.3.2, D.3.5, and D.3.11, and changes to Conditions D.3.4, D.3.8 (now renumbered D.3.10), D.6.2, and D.6.5 are shown below. All subsequent conditions in Section D.3 have been renumbered appropriately. The conditions for the new line are listed in Section D.8 of the permit and are also shown below. All subsequent D Sections of the permit have been renumbered appropriately.

D.3.2 PM10 Emission Credits [326 IAC 2-2]

Pursuant to PSD Significant Source Modification Number 045-12788-00002 issued on June 13, 2001, and in order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Rules) not applicable for the new Airset mold line for PM10, the PM10 emission credits must be made federally enforceable; therefore, the following requirements shall apply.

- (a) The amount of metal throughput to the mold line identified as POUR shall not exceed 34,304.8 tons per 12 consecutive month period. For the first month after startup of the Airset mold line, the limit shall be 2858.7 tons per month.
- (b) The PM10 emissions from the pouring/casting operation identified as POUR shall not exceed 0.22 pounds per ton of metal throughput.
- (c) The PM10 emissions from the castings cooling operation identified as POUR shall not exceed 0.22 pounds per ton of metal throughput.
- (d) The PM10 emissions from the baghouses identified as DC12 and DC9 controlling the shakeout system identified as the South shakeout, shall not exceed a combined total of 0.02 pounds per ton of metal throughput.

D.3.4 Particulate Matter

In order to comply with the requirements of Conditions D.3.1 and D.3.2, the following conditions shall apply:

- 2. The baghouses, DC2 and DC3, for PM and PM10 control shall be in operation at all times when the North Shakeout system is in operation.
- 3. The baghouses DC12 and DC9 for PM and PM10 control shall be in operation at all times when the South Shakeout system is in operation.

D.3.5 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

Within 60 days after the Airset line achieves maximum production rate, but no later than 180 days after initial start-up of the Airset line, the Permittee shall perform PM10 emissions testing on the baghouses DC12 and DC9 used to control the South shakeout system, and the pouring/casting and castings cooling operations associated with the mold line identified as POUR. Testing shall be conducted using methods as approved by the Commissioner, in order to demonstrate compliance with Condition D.3.2. The tests on the baghouses shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. PM10 includes filterable and condensable PM10.

D.3.10 Record Keeping Requirements

- (a) In order to document compliance with Condition ~~D.3.4~~ **D.3.6**, the Permittee shall maintain records of visible emission notations of the shakeout system stack exhaust(s) once per shift.
- (b) In order to document compliance with condition ~~D.3.5~~ **D.3.7**, the Permittee shall maintain records of the following operational parameters once per shift during normal operation when venting to the atmosphere:
 - (1) Inlet and outlet differential static pressure; and
 - (2) Cleaning cycle operation.
- (c) In order to document compliance with Condition ~~D.3.6~~ **D.3.8**, the Permittee shall maintain records of the results of the inspections required under Condition ~~D.3.6~~ **D.3.8** and the dates the vents are redirected.
- (d) **To document compliance with Condition D.3.2, the Permittee shall maintain records of the metal throughputs to the POUR line. These records shall be complete and sufficient to establish compliance with the emission limits established in D.3.2.**
- ~~(d)~~ (e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.3.11 Reporting Requirements

Quarterly summaries of the information to document compliance with Condition D.3.2(a) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The reports submitted by the Permittee do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

D.6.2 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 not applicable, the following condition shall apply:

- (a) The PM emissions from the baghouse DC41 controlling the North Sand Handling System shall not exceed 0.072 pound per ton of sand.
- (b) The PM-10 emissions from the baghouse DC41 controlling the North Sand Handling System shall not exceed 1.4 pounds per ton of sand.
- (c) The sand throughput to the North sand handling system shall not exceed 20,000 tons per 12 consecutive month period.
- (d) The PM emissions from the baghouses DC20, DC35, DC36, and DC39 controlling the South Sand Handling System shall not exceed 0.072 pound per ton of sand (total for all four baghouses combined).

- (e) The sand throughput to the South sand handling system shall not exceed ~~646,667~~ **113,319.2** tons per 12 consecutive month period. **For the first twelve months after issuance of this permit, the limit shall be 9443.2 tons per month.**
- (f) **The PM10 emissions from the baghouses DC20, DC35, DC36, and DC39 controlling the South Sand Handling System shall not exceed 0.005 pound per ton of sand (total for all four baghouses combined).**

Therefore, the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 shall not apply. **Compliance with (e) and (f) of this condition are necessary in order that the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 shall not apply to the new Airset mold line, as described in Section D.8 of this permit.**

D.6.5 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

~~Within 24 months after issuance of this permit~~ **60 days after the Airset line achieves maximum production rate, but no later than 180 days after initial start-up of the Airset line**, the Permittee shall perform PM and **PM10** emissions testing on the baghouses DC20, DC35, DC36, and DC39 used to control the South sand handling system using methods as approved by the Commissioner, in order to demonstrate compliance with Conditions D.6.1 and D.6.2(d). These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. **PM10 includes filterable and condensible PM10.**

SECTION D.8

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

One (1) new Airset molding line rated at a maximum steel production rate of 15.73 tons of steel or iron per hour and 47.2 tons of sand per hour. The Airset molding line consists of the following processes/equipment:

- (a) pouring operations with a maximum capacity of 15.73 tons of steel or ductile iron per hour and 47.2 tons of sand per hour, with emissions uncontrolled and exhausting through stacks S37 through S42;**
- (b) castings cooling operations with a maximum capacity of 15.73 tons of steel or ductile iron per hour and 47.2 tons of sand per hour, with emissions uncontrolled and exhausting through stacks S37 through S42;**
- (c) shakeout operations with a maximum capacity of 15.73 tons of steel or ductile iron per hour and 47.2 tons of sand per hour, with emissions controlled by two baghouses, identified as DC43 and DC44, and exhausting to stacks DC43 and DC44;**
- (d) sand handling operations with a maximum capacity of 47.2 tons of sand per hour, with emissions controlled by a baghouse identified as DC46, and exhausting to stack DC46. The sand handling system consists of the following equipment:**
 - (1) six sand storage silos, each controlled by a bin vent;**
 - (2) four (4) sand heaters;**
 - (3) covered pneumatic conveyors for transporting sand from silos to mixer;**
- (e) mechanical reclaim operations with a maximum capacity of 47.2 tons of sand per hour, with emissions controlled by a baghouse identified as DC45 and exhausting to stack DC45;**
- (f) one natural gas fired thermal reclaimer, with a maximum heat input capacity of 2.83 million Btu per hour, with a maximum capacity of 2.85 tons of sand per hour, with emissions controlled by a baghouse identified as DC46 and exhausting to stack DC46;**
- (g) phenolic urethane no-bake mold making operations with a maximum capacity of 47.2 tons of sand per hour. The mold making operation consists of the following equipment.**
 - (1) one enclosed mixer for combining mold sand with resin, with VOC emissions controlled by the thermal sand reclaimer;**
 - (2) strike off operations;**
 - (3) rollover draw/strip operations;**
 - (4) one natural gas fired preheat tunnel with a maximum heat input capacity of 0.8 million Btu per hour;**
 - (5) mold wash operations with a maximum capacity of 230.69 pounds of mold wash per hour, which is equivalent to 11.34 gallons of mold wash per hour;**
 - (6) one natural gas fired drying (curing) oven, with a maximum heat input capacity of 3.2 million Btu per hour; and**
 - (7) one mold closer process which puts the two halves of the mold together.**

Note: Each individual shakeout unit has a maximum design capacity of 10 tons of metal per hour; however, the pouring and cooling operations bottleneck the shakeout process, such that the total hourly rate at shakeout cannot exceed 15.73 tons of metal per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.8.1 BACT for VOC [326 IAC 2-2-3(a)(3)] [326 IAC 8-1-6] [326 IAC 2-4.1-1]

Pursuant to 326 IAC 2-2-3(a)(3) (Prevention of Significant Deterioration (PSD) Rules) and 326 IAC 8-1-6 (BACT), and in order to render the requirements of 326 IAC 2-4.1-1 (New Source Toxics Control) not applicable to the new Airset line, the Permittee shall comply with the following BACT requirements:

- (a) The VOC emissions from the pouring/casting and castings cooling operations shall be limited to 0.14 pounds per ton of metal poured and 2.20 pounds per hour.
- (b) The VOC emissions from the shakeout operations shall be limited to 1.2 pounds per ton of metal and 18.9 pounds per hour.
- (c) The metal throughput to this new Airset mold line shall not exceed 55,400 tons per 12 consecutive month period. Until 12 months of data have been collected, the limit shall be 4,617 tons per month.
- (d) The VOC emissions from the mold making process shall be limited to 1.17 pounds per ton of sand and 22.20 pounds per hour.
- (e) The VOC content of the mold wash shall not exceed 0.0 percent by weight.
- (f) The mold production shall not exceed 166,200 tons per 12 consecutive month period and the binder usage shall not exceed 1,662 tons per 12 consecutive month period. Until 12 months of data have been collected, the mold production limit shall be 13,850 tons per month and the binder usage limit shall be 138.5 tons per month.
- (g) The VOC emissions from the thermal sand reclamation system, which controls the mold sand mixer, shall not exceed 0.013 pounds per ton of sand mixed and 0.61 pounds per hour. The Department may revise this permit to adjust the VOC limitation based upon the results of the stack test required in Condition D.8.10. The Department will provide an opportunity for public notice and comment prior to finalizing any permit revision. IC 13-15-7-3 (Revocation or Modification of a Permit: Appeal to Board) shall apply to this permit condition.
- (h) The thermal sand reclamation system shall control VOC emissions from the mixer and achieve a minimum of 98% destruction efficiency.
- (i) The maximum throughput rate to the shakeout process shall not exceed 15.73 tons of metal per hour.

Therefore, the requirements of 326 IAC 2-4.1-1 (New Source Toxics Control) shall not apply to the mold making process. Compliance with the requirements of this condition will also satisfy the requirements of 326 IAC 8-1-6 (BACT).

D.8.2 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the following conditions shall apply:

- (a) The allowable PM emission rate from the pouring/casting and castings cooling process shall not exceed 46.7 pounds per hour each when operating at a process weight rate of 15.73 tons of metal per hour each and 47.2 tons of sand per hour each, for a total process weight rate of 62.9 tons per hour each.
- (b) The allowable PM emission rate from the baghouses DC43 and DC44 controlling the shakeout process shall not exceed 46.7 pounds per hour when operating at a process weight rate of 15.73 tons of metal per hour and 47.2 tons of sand per hour, for a total process weight rate of 62.9 tons per hour. The baghouses identified as DC43 and DC44 shall be in operation at all times the shakeout process is in operation, in order to comply with this limit.
- (c) The allowable PM emission rate from the baghouse DC46 controlling the sand handling process and the thermal reclaimer shall not exceed 44.0 pounds per hour when operating at a process weight rate of 47.2 tons of sand per hour. The baghouse identified as DC46 shall be in operation at all times the sand handling process is in operation, in order to comply with this limit.
- (d) The allowable PM emission rate from the baghouse DC45 controlling the mechanical reclaim process shall not exceed 44.0 pounds per hour when operating at a process weight rate of 47.2 tons of sand per hour.

The pounds per hour limitations were calculated using the following equation:

Interpolation and extrapolation of the data for the process weight rate greater than 60,000 pounds per hour shall be accomplished by use of the equations:

$$E = 55 P^{0.11} - 40$$

where E = rate of emission in pounds per hour;
and

P = process weight rate in tons per hour

D.8.3 PM and PM10 Emissions [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Rules) not applicable for PM and PM10, the Permittee shall comply with the following requirements:

- (a) At least 99% of all particulate matter (PM and PM-10,) emissions generated during sand handling, mechanical reclaim, and thermal reclaim operations shall be captured by a baghouse and controlled such that visible emissions from any building opening shall not exceed three percent (3%) opacity based on a six-minute average (24 readings taken in accordance with 40 CFR Part 60, Appendix A, Method 9).
- (b) At least 96% of all particulate matter (PM and PM-10,) emissions generated during shakeout operations shall be captured by a baghouse and controlled such that visible emissions from any building opening shall not exceed three percent (3%) opacity based on a six-minute average (24 readings taken in

accordance with 40 CFR Part 60, Appendix A, Method 9).

- (c) The PM emissions from the baghouses DC43 and DC44 controlling the shakeout operations shall be limited to a total of 0.03 pounds per ton of metal throughput. Compliance with this limit will also satisfy the requirements of Condition D.8.2.
- (d) The PM10 emissions from the baghouses DC43 and DC44 controlling the shakeout operations shall be limited to a total of 0.022 pounds per ton of metal throughput.
- (e) The PM emissions from the baghouse DC46 controlling the Airset sand handling operations and the thermal reclaimer shall be limited to 0.036 pounds per ton of sand throughput to the Airset sand handling system. Compliance with this limit will also satisfy the requirements of Condition D.8.2.
- (f) The PM10 emissions from the baghouse DC46 controlling the sand handling operations and the thermal reclaimer shall be limited to 0.005 pounds per ton of sand throughput.
- (g) The sand throughput to the thermal sand reclamation system shall not exceed 24,930 tons per 12 consecutive month period. Until 12 months of data have been collected, the limit shall be 2,078 tons per month.
- (h) The sand throughput to the sand handling system shall not exceed 166,200 tons per 12 consecutive month period. Until 12 months of data have been collected, the limit shall be 13,850 tons per month.
- (i) The PM emissions from the baghouse DC45 controlling the mechanical reclaimer shall be limited to 0.036 pounds per ton of sand throughput. Compliance with this limit will also satisfy the requirements of Condition D.8.2.
- (j) The PM10 emissions from the baghouse DC45 controlling the mechanical reclaimer shall be limited to 0.005 pounds per ton of sand throughput.
- (k) The PM emissions from the pouring/casting process shall be limited to 0.22 pounds per ton of metal throughput. Compliance with this limit will also satisfy the requirements of Condition D.8.2.
- (l) The PM10 emissions from the pouring/casting process shall be limited to 0.22 pounds per ton of metal throughput.
- (m) The PM emissions from the castings cooling process shall be limited to 0.22 pounds per ton of metal throughput. Compliance with this limit will also satisfy the requirements of Condition D.8.2.
- (n) The PM10 emissions from the castings cooling process shall be limited to 0.22 pounds per ton of metal throughput.

Therefore, the requirements of 326 IAC 2-2 and 40 CFR 52.21 (PSD) will not apply for

PM and PM10 emissions.

D.8.4 Lead Emissions [326 IAC 2-2] [326 IAC 2-4.1-1]

In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Rules) not applicable for lead, the Permittee shall comply with the following requirements.

- (a) The combined lead emissions from the Airset pouring/casting and castings cooling operations shall be limited to 0.13 pounds per hour.
- (b) Lead emissions from the Airset mold line shall be minimized in accordance with the attached Scrap Management Program (Attachment A).

Therefore, the requirements of 326 IAC 2-2 and 40 CFR 52.21 (PSD) will not apply for lead emissions.

D.8.5 HAPs Emissions [326 IAC 2-4.1-1]

In order to render the requirements of 326 IAC 2-4.1-1 (New Source Toxics Control) (PSD) Rules) not applicable, the metallic HAP emissions from the Airset mold line shall be minimized in accordance with the attached Scrap Management Program (Attachment A). Therefore, the requirements of 326 IAC 2-4.1.1 (New Source Toxics Control) shall not apply to the Airset mold line.

D.8.6 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the baghouses DC43 and DC44 controlling the shakeout operations, baghouse DC45 controlling the mechanical reclaimer, the thermal reclaimer and the baghouse DC46 controlling the thermal reclaimer, and the five bin vents controlling the six sand silos.

Compliance Determination Requirements

D.8.7 Particulate Matter Controls (PM/PM10)

In order to comply with the limits in Conditions D.8.2, D.8.3, D.8.4, and D.8.5, the following conditions shall apply:

- (a) The baghouses DC43 and DC44 for particulate control shall be in operation and control emissions from the shakeout operation at all times that the shakeout process is in operation.
- (b) The baghouse DC45 for particulate control shall be in operation and control emissions from the mechanical reclaimer at all times that the mechanical reclaimer is in operation.
- (c) The baghouse DC46 for particulate control shall be in operation and control emissions from the thermal reclaimer and the sand handling system at all times that the thermal reclaimer or the sand handling system is in operation.
- (d) The bin vents for particulate control shall be in place and control emissions from each of the six sand silos at all times that sand is being transferred into or

out of the silos.

- (e) All conveyors associated with the sand handling system, mechanical reclamation system, and thermal reclamation system shall be completely enclosed.

D.8.8 Volatile Organic Compound (VOC) Controls

In order to comply with D.8.1(g), the thermal sand reclaimer for VOC control shall be in operation and control emissions from the sand mixer at all times that the mixing process is in operation. When operating, the thermal reclamation system shall maintain a minimum operating temperature of 1400 °F during operation or a temperature and fan amperage as determined from the most recent compliant stack test, as approved by IDEM.

D.8.9 Volatile Organic Compounds (VOC) Content and Usage Limitations

Compliance with the VOC content and usage limitations contained in Conditions D.8.1 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the mold wash solvent manufacturer.

D.8.10 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

- (a) Within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up the Permittee shall perform VOC testing from the thermal sand reclaimer controlling the sand mixer, the using methods as approved by the Commissioner, in order to demonstrate compliance with Conditions D.8.1(g) and (h). The test on the thermal sand reclaimer controlling the mixer shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.
- (b) Within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up the Permittee shall perform VOC testing from the Airset pouring, cooling, and shakeout operations, using methods as approved by the Commissioner, in order to demonstrate compliance with Conditions D.8.1(a) and (b). Testing shall be conducted in accordance with Section C - Performance Testing.
- (c) Within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up the Permittee shall perform PM and PM10 testing from the facilities as shown in the table below.

Facility Identification	Control Device Identification
Airset shakeout units (both units)	baghouses DC43 and DC44
Airset sand handling system and thermal reclaimer	baghouse DC46
Airset mechanical reclaimer	baghouse DC45

Airset pouring/casting operations	no controls
Airset castings cooling operations	no controls

Testing shall be conducted using methods as approved by the Commissioner, in order to demonstrate compliance with Conditions D.8.2 and D.8.3. The tests on the baghouses shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. PM10 includes filterable and condensible PM10.

- (d) Any stack which has multiple processes which exhaust to the same stack shall operate all of the processes simultaneously in accordance with 326 IAC 3-6 (Source Sampling Procedures).

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.8.11 Visible Emissions Notations

- (a) Visible emission notations of the baghouses DC43, DC44, DC45, and DC46 stack exhausts shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

D.8.12 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouses DC43, DC44, DC45, and DC46 used in conjunction with the shakeout, sand handling, mechanical reclamation, and thermal reclamation processes, at least once per shift when these processes are in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies

otherwise, the pressure drop across the baghouses shall be maintained within the range of 3.0 and 6.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

The instruments used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.8.13 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the shakeout, sand handling, mechanical reclamation, and thermal reclamation processes when the ventilation system is configured to vent to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.8.14 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

D.8.15 Thermal Reclaimer Monitoring

- (a) A continuous monitoring system shall be calibrated, maintained, and operated on the thermal sand reclamation system for measuring the operating temperature. The output of this system shall be recorded, and that temperature shall be greater than or equal to 1400 degrees Fahrenheit or the temperature used to demonstrate compliance during the most recent compliance stack test, as approved by IDEM.

- (b) The duct pressure or fan amperage shall be observed at least once per shift when the thermal sand reclaimer is in operation. This pressure or amperage shall be maintained within the range specified by the manufacturer or a range as established in the most recent compliant stack test, as approved by IDEM.
- (c) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the reading is outside the above mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.8.16 Record Keeping Requirements

- (a) To document compliance with Condition D.8.11, the Permittee shall maintain records of visible emission notations of the baghouses DC 43, DC44, DC45, and DC46 stack exhausts once per shift.
- (b) To document compliance with Condition D.8.12, the Permittee shall maintain once per shift records of the inlet and outlet differential static pressure.
- (c) To document compliance with Condition D.8.13, the Permittee shall maintain records of the results of the inspections required under Condition D.8.13 and any dates the baghouse exhaust is changed from indoors to outdoors, and from the outdoors to the indoors.
- (d) To document compliance with Condition D.8.1 and D.8.3, the Permittee shall maintain records of the metal and sand throughputs to this new Airset mold line. These records shall be complete and sufficient to establish compliance with the emission limits established in D.8.1 and D.8.3.
- (e) To document compliance with Conditions D.8.1, D.8.8, and D.8.15, the Permittee shall maintain records in accordance with (1) and (2) below.
 - (1) The continuous temperature records for the thermal reclaimer and the temperature used to demonstrate compliance during the most recent compliance stack test.
 - (2) Records of the duct pressure or fan amperage once per shift.
- (f) In order to document compliance with Conditions D.8.1, the Permittee shall maintain records in accordance with (1) through (3) below.
 - (1) Copies of the Material Safety Data Sheets for each mold wash material used at the Airset mold line;
 - (2) The amount of binder usage in the Airset mold line, each month of operation; and
 - (3) The sand throughput to the thermal sand reclaimer, each month

of operation.

D.8.17 Reporting Requirements

- (a) **Quarterly summaries of the information to document compliance with Conditions D.8.1 and D.8.3 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.**
 - (b) **The reports submitted by the Permittee do require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).**
- (9) For clarification purposes, the following changes have been made to Condition D.8.2 (now renumbered D.9.2).

D.9.2 Particulate Matter Control

In order to comply with the requirements of Condition D.9.1, the ~~The control~~ devices listed in this section for PM emissions control shall be in operation at all times when the associated facility is in operation.

Changes throughout the Permit

- (1) The Office of Air Management (OAM) has changed its name to the Office of Air Quality (OAQ). This change has been made throughout the permit.

Forms

- (1) The Emergency/Deviation Occurrence Report Form is now called the Emergency Occurrence Report. All references to deviations have been removed. These forms should be sent to the Compliance Branch, not the Compliance Data Section. IDEM has negotiated with EPA on the reporting of emergencies. They agree to allow the 2 day notification to come in without the responsible official certification as long as the emergencies are included in the Quarterly Deviation and Compliance Monitoring Report. That report is certified by the responsible official, and will therefore comply with the Part 70 rule requirement to have all reports certified.
- (2) The monthly and quarterly reports will now need to be certified by the responsible official, therefore the last line in each of these reports have been changed from ~~“A certification is not required for this report.”~~ to **“Attach a signed certification to complete this report”**.
- (3) The Semi-Annual Compliance Monitoring Report, is now called the Quarterly Deviation and Compliance Monitoring Report. The form now requires the source to not only report that there were deviations, but to also include the probable cause and the response steps taken. IDEM is no longer requiring sources to report deviations in ten days, therefore the source will need submit this report quarterly. For sources with an applicable requirement which gives an alternate schedule for reporting deviations, those deviations will not need to be reported quarterly, but instead should be reported according to the schedule in the applicable requirement.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

OFFICE OF AIR QUALITY

COMPLIANCE DATA SECTION **BRANCH**

P.O. Box 6015

100 North Senate Avenue

Indianapolis, Indiana 46206-6015

Phone: 317-233-5674

Fax: 317-233-5967

PART 70 OPERATING PERMIT

EMERGENCY/~~DEVIATION~~ OCCURRENCE REPORT

Source Name: Harrison Steel Castings Company
Source Address: 900 North Mound Street, Attica, Indiana 47918
Mailing Address: P.O. Box 60, Attica, Indiana 47918
Part 70 Permit No.: T045-6002-00002

This form consists of 2 pages

Page 1 of 2

Check either No. 1 or No.2

- 9** 1. ~~_____~~ This is an emergency as defined in 326 IAC 2-7-1(12)
 C The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
 C The Permittee must submit notice in writing by mail or by facsimile within two (2) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

- ~~9~~ 2. ~~_____~~ This is a deviation, reportable per 326 IAC 2-7-5(3)(C)
~~_____~~ C ~~_____~~ The Permittee must submit notice in writing within ten (10) calendar days

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:

Control Equipment:

Permit Condition or Operation Limitation in Permit:

Description of the Emergency/~~Deviation~~:

Describe the cause of the Emergency/~~Deviation~~:

If any of the following are not applicable, mark N/A

Page 2 of 2

Date/Time Emergency/ Deviation started:
Date/Time Emergency/ Deviation was corrected:
Was the facility being properly operated at the time of the emergency/ deviation ? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO ₂ , VOC, NO _x , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency/ deviation :
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

**PART 70 OPERATING PERMIT
QUARTERLY SEMI-ANNUAL **DEVIATION and** COMPLIANCE MONITORING
REPORT**

Source Name: Harrison Steel Castings Company
Source Address: 900 North Mound Street, Attica, Indiana 47918
Mailing Address: P.O. Box 60, Attica, Indiana 47918
Part 70 Permit No.: T045-6002-00002

Months: _____ to _____ Year: _____

Page 1 of 2

This report is an affirmation that the source has met all the compliance monitoring requirements stated in this permit. This report shall be submitted **quarterly semi-annually** based on a calendar year. Any deviation from the compliance monitoring requirements, and the date(s) of each deviation, **the probable cause of the deviation, and the response steps taken** must be reported. ~~with the following exceptions:~~ **Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report.** Additional pages may be attached if necessary. ~~This form can be supplemented by attaching the Emergency/Deviation Occurrence Report.~~ If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

~~Compliance Monitoring~~ **Permit** Requirement (specify permit condition #)

Date of ~~each~~ Deviation:

Duration of Deviation:

Number of Deviations:

Probable Cause of Deviation:

Response Steps Taken:

~~Compliance Monitoring~~ **Permit** Requirement (specify permit condition #)

Date of ~~each~~ Deviation:

Duration of Deviation:

Number of Deviations:

Probable Cause of Deviation:

Response Steps Taken:

Compliance Monitoring Permit Requirement (specify permit condition #)	
Date of each Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Compliance Monitoring Permit Requirement (specify permit condition #)	
Date of each Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Compliance Monitoring Permit Requirement (specify permit condition #)	
Date of each Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management Office of Air Management

Technical Support Document (TSD) for a Part 70 Operating Permit

Source Background and Description

Source Name: Harrison Steel Castings Company
Source Location: 900 North Mound Street, Attica, Indiana 47918
County: Fountain County
SIC Code: 3325, 3321
Operation Permit No.: T045-6002-00002
Permit Reviewer: Nisha Sizemore

The Office of Air Management (OAM) has reviewed a Part 70 permit application from Harrison Steel Castings Company relating to the operation of a steel and ductile iron castings plant.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (1) The scrap and charge handling process, constructed in 1951, with a maximum capacity of 24.5 tons of steel per hour, with emissions uncontrolled exhausting through stacks S8 and S10.
- (2) The melting process consisting of the following:
 - (a) One (1) electric arc furnace, identified as EAF2, constructed in 1951 with a maximum melt rate of 4.5 tons of steel or iron per hour with emissions controlled by one (1) baghouse, identified as DC4, exhausting through stack DC4.
 - (b) One (1) electric arc furnace, identified as EAF3, constructed prior to October 1974 with a maximum melt rate of 10 tons of steel or iron per hour with emissions controlled by one (1) baghouse, identified as DC5, exhausting through stack DC5.
 - (c) One (1) electric arc furnace, identified as EAF4, constructed in 1989 with a maximum melt rate of 10 tons of steel or iron per hour with emissions controlled by one (1) baghouse, identified as DC40, exhausting through stack DC40.

Note: Two (2) baghouses identified as DC38 and DC42 are used to control fugitive melt shop particulate emissions at the roof monitor.

- (3) The pouring, cooling, and shakeout operations consisting of the following:
 - (a) One (1) pouring/casting operation, identified as POUR, constructed on or before

- 1951 with a maximum capacity of 10 tons of melted steel per hour and 24.32 tons of sand per hour with emissions uncontrolled.
- (b) One (1) casting cooling operation, identified as POUR, constructed on or before 1951 with a maximum capacity of 10 tons of melted steel per hour and 24.32 tons of sand per hour with emissions uncontrolled.
 - (c) One (1) pouring/casting operation, identified as LDL, constructed in 1950, with a maximum capacity of 4.5 tons of melted steel per hour and 24.32 tons of sand per hour with emissions uncontrolled.
 - (d) One (1) casting cooling operation, identified as LDL, constructed in 1950, with a maximum capacity of 4.5 tons of melted steel per hour and 24.32 tons of sand per hour with emissions uncontrolled.
 - (e) One (1) shakeout system, identified as North Shakeout, constructed in 1958, with a maximum capacity of 2.29 tons of steel per hour and 8 tons of sand per hour with emissions controlled by a baghouse, identified as DC2.
 - (f) One (1) shakeout system, identified as South Shakeout, constructed in 1965, with a maximum capacity of 57.14 tons of steel per hour and 200 tons of sand per hour with emissions controlled by two (2) baghouses, identified as DC12 and DC9.
- (4) One (1) magnesium treatment operation for producing ductile iron castings, identified as DCTLE, constructed in 1987, with a maximum capacity of 4.5 tons of iron per hour with emissions uncontrolled.
- (5) The shot blasting operations consisting of the following;
- (a) Two (2) twin table blast machines, identified as L3/4 - NTT and L3/4 - STT, both constructed in 1961 each with a maximum capacity of 25 tons of steel per hour with emissions from L3/4 - NTT controlled by baghouse DC16 and emissions from L3/4 - STT controlled by baghouse DC18.
 - (b) One (1) Nelle Belle shotblast machine, identified as Nelle, constructed in 1955 with a maximum capacity of 60 tons of steel per hour with emissions controlled by a baghouse, identified as DC7.
 - (c) One (1) Wheelabrator Frye shotblast machine, identified as #16 Monorail, constructed in 1976 with a maximum capacity of 25.7 tons of metal per hour with emissions controlled by a baghouse, identified as DC17.
 - (d) Two (2) room blast machines, identified as LN3-Rm and LN5-S Rm, constructed in 1962 and 1967, respectively, with a maximum capacity of 8 tons of steel per hour each with emissions from LN3-RM controlled by baghouse DC30 and emissions from LN5-S Rm controlled by baghouse DC28.
 - (e) One (1) room blast machine, identified as LN5-N, constructed in 1960 with a maximum capacity of 10 tons of steel per hour with emissions controlled by a baghouse, identified as DC11.
 - (f) One (1) room blast machine, identified as LN2-N, constructed in 1981 with a maximum capacity of 13 tons of steel per hour with emissions controlled by a

- baghouse, identified as DC23.
- (g) One (1) tumble blast machine, identified as LN1-TMBL, constructed in 1945 with a maximum capacity of 4.5 tons of steel per hour with emissions controlled by a baghouse, identified as DC10.
 - (h) One (1) twin table blast machine, identified as LN6-TT, constructed in 1959 with a maximum capacity of 25 tons of steel per hour with emissions controlled by a baghouse, identified as DC24.
 - (i) One (1) monorail blast machine, identified as #18 Monorail, constructed in 1980 with a maximum capacity of 11.4 tons of steel per hour with emissions controlled by a baghouse, identified as DC21.
 - (j) One (1) room blast machine, identified as LN2-S Rm, constructed in 1979 with a maximum capacity of 7 tons of steel per hour with emissions controlled by a baghouse, identified as DC33.
 - (k) One (1) chill room tumble blast machine, identified as Chill Tmbl, constructed July 1, 1977, with a maximum capacity of 11.4 tons of steel per hour with emissions controlled by a baghouse, identified as DC6.
 - (l) One (1) chill room cabinet blast machine, identified as Chill Cbnt, constructed in 1978 with a maximum capacity of 11.4 tons of steel per hour with emissions controlled by a baghouse, identified as DC6.
- (6) One (1) sand handling system, identified as North Sand Handling System, constructed in 1988 and modified in 1994 with a maximum capacity of 8 tons of sand per hour with emissions controlled by a baghouse, identified as DC41.
- (7) One (1) sand handling, identified as South Sand Handling System, constructed in 1967 and modified in 1988 with a maximum capacity of 200 tons of sand per hour with emissions controlled by four (4) baghouses, identified as DC20, DC35, DC36, and DC39.
- (8) Core and mold making operations consisting of the following:
- (a) One (1) Isocure core making machine equipped with a mixer, identified as Isocure, constructed in 1995 with a maximum capacity of 4.5 tons of sand per hour equipped with a scrubber to control TEA emissions, and with a one (1) to seven (7) ton new sand storage hopper.
 - (b) One (1) Airset core making machine equipped with a mixer, identified as Pep Core, constructed in 1992 with a maximum capacity of 9 tons of sand per hour with emissions uncontrolled.
 - (c) One (1) Pepset mold making machine equipped with a mixer, constructed in 1994 with a maximum capacity of 45 tons of sand per hour with emissions uncontrolled.
 - (d) One (1) Oil core making machine equipped with a mixer, identified as Red CO₂, constructed in 1988 with a maximum capacity of 0.05 tons of sand per hour with emissions uncontrolled.
 - (e) One (1) Airset core making machine equipped with a mixer, identified as Zircon,

constructed in 1992 with a maximum capacity of 9 tons of sand per hour with emissions uncontrolled.

- (f) One (1) CO₂ core making machine equipped with a mixer, constructed in 1954, with a maximum capacity of 0.4 tons of sand per hour.
- (g) Three (3) Oil Sand core making machines, each equipped with a mixer, constructed in 1959, each with a maximum capacity of 0.4 tons of oil per hour and 0.6 tons of CO₂ per hour.
- (h) Two (2) Shell core making machines, each equipped with a mixer, constructed in 1962 and 1973, each with a maximum capacity of 0.075 tons of sand per hour.
- (i) One (1) CO₂ core making machine equipped with a mixer, constructed in 1971, with a maximum capacity of 0.3 tons of sand per hour.
- (j) One (1) Shell core making machine equipped with a mixer, constructed in 1976, with a maximum capacity of 0.125 tons of sand per hour.
- (k) One (1) Airset core making machine equipped with a mixer, constructed in 1976, with a maximum capacity of 16.5 tons of sand per hour.
- (l) One (1) core wash process, constructed prior to 1977, with emissions uncontrolled and exhausting internally.

Unpermitted Emission Units and Pollution Control Equipment

The source also consists of the following unpermitted facilities/units:

- (1) One (1) natural gas-fired surface combustion heat treat furnace, identified as L7SC, constructed in 1997 with a maximum capacity of 24.5 million British thermal units per hour, with emissions uncontrolled; and
- (2) The North sand system described above was permitted when it was originally constructed in 1988, but the modification made in 1994 is unpermitted.

New Emission Units and Pollution Control Equipment

There are no new facilities to be reviewed.

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (1) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.
- (2) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons.

- (a) Two (2) underground storage tanks, identified as Delta 1 and Delta 2, both constructed in 1988 with a maximum capacity of 4,000 gallons and 3,000 gallons, respectively.
- (3) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.
- (4) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.
- (5) Refractory storage not requiring air pollution control equipment.
- (6) Machining where an aqueous cutting coolant continuously floods the machining interface.
- (7) The following equipment related to the manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.
- (8) Quenching operations used with heat treating processes.
- (9) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (10) Paved and unpaved roads and parking lots with public access.
- (11) Underground conveyors.
- (12) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
- (13) Furnaces used for melting metals other than beryllium with a brim full capacity of less than or equal to 450 cubic inches by volume.
- (14) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations.
 - (a) Grinding machines each with a maximum capacity of 18.9 pounds per hour with emissions controlled by baghouses, identified as DC13, DC14, DC26, DC37, and DC38.
 - (b) One (1) pattern woodworking shop with emissions controlled by a roto-clone, identified as DC1.
- (15) Mold release agents using low volatile products (vapor pressure less than or equal to 2 kilopascals measured at 38 degrees C).
- (16) Other activities or categories not previously identified:
Insignificant Thresholds: Activities with emissions equal to or less than thresholds require listing only.
Lead (Pb) = 0.6ton/yr or 3.29lbs/day

Sulfur Dioxide (SO₂) = 5lbs/hr or 25lbs/day
Nitrogen Oxides (NO_x) = 5lbs/hr or 25 lbs/day
Carbon Monoxide (CO) = 25lbs/day
Particulate Matter (PM) = 5lbs/hr or 25lbs/day
Volatile Organic Compounds (VOC) = 3lbs/hr or 15lbs/day

- (a) Flame cutting - natural gas and oxygen torch to remove gates, spurs, and rizers.
- (b) Flame wash - arc welding like torch to smooth castings after flame cutting.
- (c) One (1) paint booth for coating metal castings, constructed prior to 1977, utilizing air assisted airless spray type, with VOC emissions uncontrolled and overspray controlled by using a filter wall, with emissions exhausting to stack S154.

Molding making operations consisting of the following:

- (d) Four (4) green sand molding machines, identified as #20 Jolt, #8 Jolt, #13 Jolt, and #21 Jolt constructed in 1941, 1929, 1930, and 1996, respectively, each with a maximum capacity of 13 tons of sand per hour.
- (e) One (1) green sand molding machine, identified as Herm Jolt, constructed in 1977, with a maximum capacity of 26 tons of sand per hour with emission uncontrolled.
- (f) Two (2) green sand molding machines, identified as #14 Jolt and #10 Jolt, constructed in 1935 and 1929, respectively, each with a maximum capacity of 8 tons of sand per hour with emissions uncontrolled.
- (h) One (1) natural gas-fired pusher furnace, identified as L6PF, constructed in 1951 with a maximum capacity of 28.7 mmBtu per hour with emissions uncontrolled.

Core ovens:

- (i) Two (2) electric core ovens, constructed in 1978 and 1982, each with a maximum capacity of 204 kilowatts per hour.
- (j) Two (2) core ovens, constructed in 1951 and 1943, each with a maximum capacity of 2.5 million British thermal units per hour.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

- (1) Registration CP 045-4317-00002, issued on February 14, 1995;
- (2) OP 045-0002-0076, issued on November 19, 1990;
- (3) OP 045-0002-0077, issued on November 19, 1990;
- (4) OP 045-0002-0078, issued on November 19, 1990;
- (5) OP 045-0002-0079, issued on November 19, 1990;

(6) OP 045-0002-0080, issued on November 19, 1990; and

(4) OP 23-12-92-0075, issued on December 1, 1988.

All conditions from previous approvals were incorporated into this Part 70 permit.

Enforcement Issue

- (a) IDEM is aware that equipment has been constructed and operated prior to receipt of the proper permit. The subject equipment is listed in this Technical Support Document under the condition entitled *Unpermitted Emission Units and Pollution Control Equipment*.
- (b) IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules.

Recommendation

The staff recommends to the Commissioner that the Part 70 permit be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete Part 70 permit application for the purposes of this review was received on May 31, 1996.

A notice of completeness letter was mailed to the source on February 21, 1997.

Emission Calculations

See Appendix A of this document for detailed emissions calculations.

Potential Emissions

Pursuant to 326 IAC 1-2-55, Potential Emissions are defined as "emissions of any one (1) pollutant which would be emitted from a facility, if that facility were operated without the use of pollution control equipment unless such control equipment is necessary for the facility to produce its normal product or is integral to the normal operation of the facility."

Pollutant	Potential Emissions (tons/year)
PM	greater than 100
PM-10	greater than 100
SO ₂	less than 100
VOC	greater than 100
CO	less than 100
NO _x	less than 100

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential Emissions (tons/year)
Ethyl Benzene	less than 10
Formaldehyde	less than 10
Naphthalene	less than 10
Phenol	less than 10
Toluene	less than 10
Xylene	less than 10
TOTAL	greater than 25

- (a) The potential emissions (as defined in 326 IAC 1-2-55) of PM-10 and VOC are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is equal to or greater than ten (10) tons per year or the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination HAPs is greater than or equal to twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (c) Fugitive Emissions
Since this type of operation is one of the twenty-eight (28) listed source categories under 326 IAC 2-2, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are counted toward determination of PSD and Emission Offset applicability.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 1999 OAM emission data.

Pollutant	Actual Emissions (tons/year)
PM	478
PM-10	478
SO ₂	2
VOC	1
CO	11
NO _x	0

Limited Potential to Emit

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units.

Process/facility	Limited Potential to Emit (tons/year)						
	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Scrap and charge handling - 1951	153.30	--	--	--	--	--	--
Electric Arc Furnace (EAF2) - 1951	49.06	--	--	--	--	--	--
Electric Arc Furnace (EAF3) - 1974	84.10	--	--	--	--	--	--
Electric Arc Furnace (EAF4) - 1989	24.00*	14.00*	--	--	--	--	--
Pouring/casting operation (POUR) - prior to 1951	180.46	--	--	--	--	--	--
Cooling operation (POUR) - prior to 1951	180.46	--	--	--	--	--	--
Pouring/casting operation (LDL) - prior to 1951	170.82	--	--	--	--	--	--
Cooling operation (LDL) - prior to 1951	170.82	--	--	--	--	--	--
North Shakeout - 1958	85.41	--	--	--	--	--	--
South Shakeout - 1967	268.49	--	--	--	--	--	--
Magnesium Ductile Treatment (DCTLE) - 1987	24.00*	--	--	--	--	--	--
North Sand Handling - DC41 - 1988 and 1994	23.04*	14.00*	--	--	--	--	--
South Sand Handling - DC20, 35, 36, & 39 - 1967 and 1988	0.96*	--	--	--	--	--	--
Shotblasters: L3/4-NTT - 1961	155.05	--	--	--	--	--	--
L3/4-STT - 1961	155.05	--	--	--	--	--	--
Nelle - 1955	202.79	--	--	--	--	--	--
#16 Monorail - 1976	158.11	--	--	--	--	--	--
LN3-Rm 1962	72.27	--	--	--	--	--	--
LN5-S - 1967	72.27	--	--	--	--	--	--
LN5-N - 1960	84.09	--	--	--	--	--	--
LN2-N - 1981	24.00*	--	--	--	--	--	--
LN1-TMBL - 1945	49.05	--	--	--	--	--	--
LN6-TT - 1959	155.05	--	--	--	--	--	--
#18 Monorail - 1980	24.00*	--	--	--	--	--	--
LN2-S Rm - 1979	24.00*	--	--	--	--	--	--
Chill Tmbl and Chill Cbnt - 1978	24.00*	--	--	--	--	--	--
Isocure Core Machine - 1995	--	--	--	24.00	--	--	--

Pepset mold machine - 1994	--	--	--	24.00	--	--	--
Total Emissions	2614.65	28.00	--	48.00			

*Limited to avoid PSD applicability.

County Attainment Status

The source is located in Fountain County.

Pollutant	Status
PM-10	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment
CO	attainment
Lead	attainment

Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Fountain County has been designated as attainment or unclassifiable for ozone.

Federal Rule Applicability

- (a) None of the electric arc furnaces at this source are subject to the requirements of the New Source Performance Standard 40 CFR 60 Subpart AAa or Subpart AA because they are not used in the production of any intermediate products, such as steel bars, billets, etc. This source is only involved in the production of steel and gray iron castings. A condition will be included in the permit stating that these furnaces shall not be used in the production of any intermediate products, such as bars, billets, etc.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (40 CFR Parts 61 or 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

This existing source is a major stationary source because it is one of the 28 listed source categories (secondary metal production) and at least one attainment regulated pollutant is emitted at a rate of 100 tons per year. This source has never been reviewed under the requirements of PSD.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than one hundred (100) tons per year of VOC, PM, and PM10. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by July 1 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period, as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on April 7, 1995. The plan includes the following:

- (a) Using wet suppression for stockpiles and unpaved roads on an as-needed basis.
- (b) Sweeping paved roads on an as-needed basis.

State Rule Applicability - Individual Facilities

326 IAC 6-3-2 (Process Operations)

Pursuant to this rule the particulate matter (PM) from the facilities shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

or

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

Process/facility	Control Device ID	Maximum Process Weight Rate (tons/hr)	Allowable PM Emissions (lbs/hr)	Allowable PM Emissions (tons per year)
scrap and charge handling	none	24.5	35.0	153
electric arc furnace EAF2	baghouse DC4	4.5	11.2	49.1
electric arc furnace EAF3	baghouse DC5	10	19.2	84.1
electric arc furnace EAF4	baghouse DC40	10	19.2	84.1
pouring/casting process identified as POUR and castings cooling process identified as POUR	none	34.2 (each)	41.2 (each)	180 (each)
pouring/casting process identified as LDL and castings cooling process identified as LDL	none	28.8 (each)	39.0 (each)	171 (each)
North shakeout operation	baghouse DC2	10.3	19.5	85.4
South shakeout operation	baghouses DC12 and DC9	257	61.3	268
Magnesium treatment operation	none	4.5	11.2	49.1

Process/facility	Control Device ID	Maximum Process Weight Rate (tons/hr)	Allowable PM Emissions (lbs/hr)	Allowable PM Emissions (tons per year)
Twin table shotblast machine L3/4-NTT	baghouse DC16	25	35.4	155
Twin table shotblast machine L3/4-STT	baghouse DC18	25	35.4	155
Nelle Belle shotblast machine	baghouse DC7	60	46.3	203
Wheelabrator Frye shotblast machine	baghouse DC17	25.7	36.1	158
Room blast shotblast machine LN3-Rm	baghouse DC30	8	16.5	72.3
Room blast shotblast machine LN5-S Rm	baghouse DC28	8	16.5	72.3
Room blast shotblast machine LN5-N	baghouse DC11	10	19.2	84.1
Room blast shotblast machine LN2-N	baghouse DC23	13	22.9	100
Tumbleblast shotblast machine LN1-TMBL	baghouse DC10	4.5	11.2	49.1
Twin table blast shotblast machine LN6-TT	baghouse DC24	25	35.4	155
#18 Monorail shotblast machine	baghouse DC21	11.4	20.9	91.5
Room blast shot blast machine LN2-S Rm	baghouse DC33	7	15.1	66.1
Chill room tumble blast shotblast machine and chill room cabinet blast shotblast machine	baghouse DC6	22.8 (combined)	33.3 (combined limit for both machines)	146 (combined for both machines)
North sand handling system	baghouse DC41	8	16.5	72.3
South sand handling system	baghouses DC20, DC35, DC36, and DC39	200	58.5	256

Process/facility	Control Device ID	Maximum Process Weight Rate (tons/hr)	Allowable PM Emissions (lbs/hr)	Allowable PM Emissions (tons per year)
Insignificant grinding machines	baghouses DC13, DC14, DC26, and DC37	less than 100 pounds per hour each	0.551 (each)	2.41 (each)
Insignificant green sand molding machines identified as #20, #8, #13, and #21 Jolt	none	13 (each)	22.9 (each)	100 (each)
Insignificant green sand molding machine identified as Herm Jolt	none	26	36.4	159
Insignificant green sand molding machines identified as #14 and #10 Jolt	none	8 (each)	16.5 (each)	72.3 (each)

The baghouses shall be in operation at all times the corresponding facilities are in operation, in order to comply with this limit. Based on calculations, the processes are in compliance with these requirements.

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

(1) Electric arc furnace EAF4, constructed in 1989

In order to render the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 not applicable to the electric arc furnace EAF4, the following conditions shall apply:

- (a) The PM emissions from the electric arc furnace (EAF4) shall not exceed 5.48 pounds per hour.
- (b) The PM-10 emissions from the electric arc furnace (EAF4) shall not exceed 3.20 pounds per hour.

Therefore, the requirements of 326 IAC 2-2(PSD) and 40 CFR 52.21 do not apply.

(2) Magnesium Treatment Operation, constructed in 1987

In order to render the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 not applicable to the magnesium treatment operation, the following conditions shall apply:

- (a) The amount of metal throughput to the magnesium treatment (DCTLE) operation shall not exceed 26,630 tons of metal per 12 consecutive month period.
- (b) The PM emissions from the magnesium treatment operation (DCTLE) shall not exceed 1.80 pounds per ton of metal throughput.

This is equivalent to PM emissions of 24 tons per year; which is less than the PSD significance level. Therefore, the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 do not apply.

**(3) Chill room tumbleblast shotblast machine, constructed in 1978,
Room blast shotblast machine LN2-S Rm, constructed in 1979,
#18 Monorail shotblast machine, constructed in 1980, and
Room blast shotblast machine LN2-N, constructed in 1981**

In order to render the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 not applicable to the above-listed shotblast machines, the following conditions shall apply:

- (e) The PM emissions from the baghouse DC6 controlling the Chill Cbnt and Chill Tmbl shot blast machines shall not exceed 5.48 pounds per hour.
- (f) The PM emissions from the baghouse DC33 controlling the LN2-S Rm shot blast machine shall not exceed 5.48 pounds per hour.
- (g) The PM emissions from the baghouse DC21 controlling the #18 Monorail shot blast machine shall not exceed 5.48 pounds per hour.
- (h) The PM emissions from the baghouse DC23 controlling the LN2-N shot blast machine shall not exceed 5.48 pounds per hour.

These limits are sufficient to limit PM emissions to less than the PSD significance level for each shotblast machine. Therefore, the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 shall not apply.

(4) North sand handling system, constructed in 1988 and modified in 1994

In order to render the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 not applicable to the North sand handling system, the following conditions shall apply:

- (a) The PM emissions from the baghouse DC41 controlling the North Sand Handling System shall not exceed 0.072 pound per ton of sand.
- (b) The PM-10 emissions from the baghouse DC41 controlling the North Sand Handling System shall not exceed 1.4 pounds per ton of sand.
- (c) The sand throughput to the North sand handling system shall not exceed 20,000 tons per 12 consecutive month period.

These limits are equivalent to PM emissions of 0.7 tons per year from the North sand handling system. The south sand handling system was modified in 1988 also, and is limited to 23.3 tons PM per year, for a total limit of 24 tons PM per year for the 1988 modification. The PM10 emissions from the South sand handling system are not taken into account when establishing the limits because the South sand handling system was constructed and modified before PM10 became a regulated pollutant. Only the PM10 emissions from the North sand handling system must be limited to below the PSD applicability threshold, because the North sand handling system was modified in 1994, which is after PM10 became a regulated pollutant. The PM10 limit for the North sand handling system is equivalent to 14 tons per year. These PM and PM10 limits are less than the PSD significance levels. Therefore, the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 shall not apply.

(5) The South Sand Handling System, constructed in 1967 and modified in 1988

In order to render the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 not applicable to the sand reclaimer, the following conditions shall apply:

- (a) The PM emissions from the baghouses DC20, DC35, DC36, and DC39 controlling the South Sand Handling System shall not exceed 0.072 pound per ton of sand (total for all four baghouses combined).
- (b) The sand throughput to the South sand handling system shall not exceed 646,667 tons per 12 consecutive month period.

This is equivalent to PM emissions of 23.3 tons per year from the South sand handling system. When combined with the limit for the North sand handling system, which was constructed the same year that this system was modified, the total limited PM emissions from the 1988 modification are 24 tons per year; which is less than the PSD significance level. Therefore, the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 shall not apply.

(6) All other facilities

None of the other facilities are subject to the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) because they were either constructed prior to 1977, or they have the potential to emit less than the PSD applicability levels.

326 IAC 8-1-6 (Best Available Control Technology (BACT))

(1) Core Making Operations - Isocure core machine equipped with a mixer constructed in 1995

The Isocure core machine has potential VOC emissions greater than 25 tons per year. The Isocure core machine and the sand/resin mixer operate in sequence and are dependent facilities. Therefore, VOC emissions from both the mixer and the core machine are considered when determining whether 326 IAC 8-1-6 (BACT) is applicable. The TEA emissions from the core machine are controlled by an acid scrubber. The other VOC emissions from the core machine are uncontrolled. The VOC emissions from the mixer are also uncontrolled. The potential VOC emissions from the mixer and the core machine are greater than 25 tons per year; therefore, in order to render the requirements of 326 IAC 8-1-6 (BACT) not applicable the following conditions shall apply:

- (a) The scrubber controlling the Isocure core machine shall be in operation at all times when the core machine is in operation.
- (b) The VOC/TEA emissions from the scrubber controlling the TEA gas emissions from the Isocure core making machine shall not exceed 0.05 pound per hour.
- (b) The uncontrolled VOC emissions from the Isocure core making machine and mixer shall not exceed 5.43 pounds per hour.

Compliance with the above conditions is equivalent to VOC emissions of 24 tons per year for the Isocure core machine, which is less than the applicability threshold for 326 IAC 8-1-6 (BACT). Therefore, the requirements of 326 IAC 8-1-6 (BACT) shall not apply. Compliance with above limits

will also render the requirements of 326 IAC 2-2 not applicable.

(2) Mold Making Operations - Pepset mold making machine, constructed in 1994

The Pepset mold machine has potential VOC emissions greater than 25 tons per year; therefore, in order to render the requirements of 326 IAC 8-1-6 (BACT) not applicable the following conditions shall apply:

- (a) The VOC emissions from the Pepset mold making machine shall not exceed 0.65 pound per ton of sand throughput.
- (b) The sand throughput to the Pepset mold making machine shall not exceed 73,846 tons per 12 consecutive month period.

Compliance with (a) and (b) above is equivalent to VOC emissions of 24 tons per year, which is less than the applicability threshold for 326 IAC 8-1-6 (BACT). Therefore, the requirements of 326 IAC 8-1-6 (BACT) shall not apply. Compliance with above limits will also render the requirements of 326 IAC 2-2 not applicable.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

Compliance Monitoring

The various processes at Harrison Steel Castings Company have applicable compliance monitoring conditions as specified below:

- (1) Visible emissions notations of all of the controlled stack exhausts and the melt shop roof openings shall be performed once per shift during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty

percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

- (2) The Permittee shall record the total static pressure drop across each of the baghouses, at least once per shift when the associated processes are in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouses shall be maintained within the range of 2.0 to 8.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.
- (3) An inspection shall be performed each calendar quarter of all bags controlling the significant emission units. All defective bags shall be replaced.
- (4) In the event that bag failure has been observed.
 - (a) The affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
 - (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (5) The Permittee shall monitor and record the acid content, pressure drop, and flow rate of each of the scrubbers, at least once per shift when the associated core machines are in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across each of the scrubbers shall be maintained within the range of 2.0 and 6.0 inches of water, or a range established during the latest stack test. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the flow rate of each of the scrubbers shall be maintained at no less than 120 gallons per minute, or a minimum established during the latest stack test. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the acid content of each of the scrubbers shall be maintained at a pH level of 2 or below, or an acid content established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above

mentioned ranges for any one reading, or when the flow rate is below the above mentioned minimum level for any one reading, or when the pH is above the above mentioned maximum for any one reading.

The instruments used for determining the pressure, flow rate, and pH level shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of the permit, shall be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.

- (6) An inspection shall be performed each calender quarter of the scrubber controlling the Isocure core machine. A scrubber inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. The Permittee shall maintain records of the results of the scrubber inspections.
- (7) In the event that a scrubber failure has been observed:
- Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (8) The Permittee shall perform stack tests as shown in the table below using methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration, except for the tests performed on the electric arc furnaces, which shall be repeated at least once every 2.5 years. PM-10 includes filterable and condensible PM-10.

Stack Test Requirements

Facilities to be tested	Pollutants to test	Limits	Testing Schedule
baghouse DC40 controlling electric arc furnace EAF4	PM	5.48 lbs/hr	Within 6 months after permit issuance, then once every 2.5 years
	PM10	3.20 lbs/hr	Within 6 months after permit issuance, then once every 2.5 years
baghouses DC4 and DC5 controlling electric arc furnaces EAF2 and EAF3	PM	11.2 lbs/hr at PWR of 4.5 tph and 19.2 lbs/hr at PWR of 10 tph	Within 6 months after permit issuance, then once every 2.5 years
baghouse DC23 controlling LN2-N shotblast machine	PM	5.48 lbs/hr	Within 6 months after permit issuance, then once every 5 years
baghouses DC20, DC35, DC36, and DC39 controlling the south sand handling system	PM	0.036 lbs/ton sand (total for all four baghouses combined)	Within 6 months after permit issuance, then once every 5 years

Isocure core machine and mixer	VOC	5.48 lbs/hr	Within 6 months after permit issuance, then once every 5 years
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These monitoring and stack testing requirements are necessary because the baghouses and the scrubber for the processes must operate properly to ensure compliance with 326 IAC 6-3-2 (Process Operations), 326 IAC 8-1-6 (BACT), 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), 326 IAC 5-1 (Opacity Limitations), and 326 IAC 2-7 (Part 70).

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 187 hazardous air pollutants (HAPs) set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Part 70 Application Form GSD-08.

- (a) This source will emit levels of air toxics greater than those that constitute major source applicability according to Section 112 of the 1990 Clean Air Act Amendments.
- (b) See attached calculations for detailed air toxic calculations.

Conclusion

The operation of this steel and ductile iron castings plant shall be subject to the conditions of the attached proposed Part 70 Permit No. T045-6002-00002.

Appendix A

VOC calculations for Isocure, Airset, and Pepset core and mold making machines

Appendix A: Emission Calculations

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Company Name: Harrison Steel Castings Company
Plant Location: 900 North Mound Street, Attica, Indiana 47918
County: Fountain County
Permit Reviewer: Autumn M. Marker
Title V #: T045-6002-00002
Plt. ID #: 045-00002

Process:	Rate (tons sand/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)
Isocure Core Machine	4.5	VOC	0.65	12.8

Process:	Rate (tons sand/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)
Airset Core Machine	9	VOC	1.17	46.1

Process:	Rate (tons sand/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)
Pepset Mold Making Machine	45	VOC	0.65	128.1

VOC emissions factors taken from the Ohio Cast Metals Association (OCMA) study.

Appendix A: Emission Calculations

Company Name: Harrison Steel Castings Company
Plant Location: 900 North Mound Street, Attica, IN 47918
County: Fountain
Permit Reviewer: Nisha Sizemore
Title V #: 045-6002-00002

** Process Emissions **

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Type of control	Control Efficiency (%)
Scrap and Charge	24.5	PM	0.60	64.39	64.39		
Handling		PM-10	0.36	38.63	38.63		
SCC# 3-04-007-12		SO2	0.00	0.00	0.00		
AP-42 Ch. 12.10		NOx	0.00	0.00	0.00		
		VOC	0.00	0.00	0.00		
		CO	0.00	0.00	0.00		

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than or equal to 30 tons per hour:

$$P = \frac{24.5 \text{ tons/hr}}{4.1 \times (P^{0.67})} = 34.96 \text{ lb/hr} = 153.11 \text{ tons/year}$$

with potential:

$$64.4 \text{ tons/yr} \times 2000 \text{ lb/ton} / 8760 \text{ hr/yr} = 14.7 \text{ lb/hr} \quad (\text{will comply})$$

Limited Emissions

Harrison Steel Castings Company
900 North Mound Street, Attica, IN 47918

T 045-6002-00002

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Type of control	Control Efficiency (%)
electric arc furnace	4.5	PM	12.70	250.32	2.85	baghouse	98.86%
EA2		PM-10	11.40	224.69	2.56	baghouse	98.86%
		SO2	0.25	4.93	4.93		
		NOx	0.32	6.31	6.31		
EPA SCC# 3-04-007-01		VOC	0.18	3.55	3.55		
AP-42 Ch. 12.10		CO	0.00	0.00	0.00		

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than or equal to 30 tons per hour:

$$\begin{aligned}
 P &= 4.5 \text{ tons/hr} \\
 \text{Limit} &= 4.1 \times (P^{0.67}) \\
 &= 11.23 \text{ lb/hr} = 49.19 \text{ tons/year}
 \end{aligned}$$

with potential:

$$2.9 \text{ tons/yr} \times 2000 \text{ lb/ton} / 8760 \text{ hr/yr} = 0.65151 \text{ lb/hr} \quad (\text{will comply})$$

Limited Emissions

Harrison Steel Castings Company
900 North Mound Street, Attica, IN 47918

T 045-6002-00002

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Type of control	Control Efficiency (%)
electric arc furnace	10	PM	12.70	556.26	6.34	baghouse	98.86%
EA3		PM-10	11.40	499.32	5.69	baghouse	98.86%
		SO2	0.25	10.95	10.95		
		NOx	0.32	14.02	14.02		
EPA SCC# 3-04-007-01		VOC	0.18	7.88	7.88		
AP-42 Ch. 12.10		CO	0.00	0.00	0.00		

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than or equal to 30 tons per hour:

$$\begin{aligned}
 P &= 10 \text{ tons/hr} \\
 \text{Limit} &= 4.1 \times (P^{0.67}) \\
 &= 19.18 \text{ lb/hr} = 84.00 \text{ tons/year}
 \end{aligned}$$

with potential:

$$6.3 \text{ tons/yr} \times 2000 \text{ lb/ton} / 8760 \text{ hr/yr} = 1.4478 \text{ lb/hr} \quad (\text{will comply})$$

Limited Emissions

Harrison Steel Castings Company
900 North Mound Street, Attica, IN 47918

T 045-6002-00002

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Type of control	Control Efficiency (%)
electric arc furnace	10	PM	12.70	556.26	6.34	baghouse	98.86%
EA4		PM-10	11.40	499.32	5.69	baghouse	98.86%
		SO2	0.25	10.95	10.95		
		NOx	0.32	14.02	14.02		
EPA SCC# 3-04-007-01		VOC	0.18	7.88	7.88		
AP-42 Ch. 12.10		CO	0.00	0.00	0.00		

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than or equal to 30 tons per hour:

$$\begin{aligned}
 P &= 10 \text{ tons/hr} \\
 \text{Limit} &= 4.1 \times (P^{0.67}) \\
 &= 19.18 \text{ lb/hr} = 84.00 \text{ tons/year}
 \end{aligned}$$

with potential:

$$6.3 \text{ tons/yr} \times 2000 \text{ lb/ton} / 8760 \text{ hr/yr} = 1.4478 \text{ lb/hr} \quad (\text{will comply})$$

Limited Emissions

Harrison Steel Castings Company
900 North Mound Street, Attica, IN 47918

T 045-6002-00002

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Type of control	Control Efficiency (%)
Pouring/Casting	10	PM	2.80	122.64	122.64		
POUR		PM-10	2.80	122.64	122.64		
		SO2	0.02	0.88	0.88		
		NOx	0.01	0.44	0.44		
EPA SCC# 3-04-007-08		VOC	0.14	6.13	6.13		
AP-42 Ch. 12.10		CO	0.00	0.00	0.00		

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates greater than 30 tons per hour:

$$\begin{array}{ll}
 P = & 34.32 \text{ tons/hr} \\
 \text{Limit} = 55 \times (P^{0.11}) - 40 = & 41.15 \text{ lb/hr} = 180.22 \text{ tons/year}
 \end{array}$$

P includes the weight of the metal plus the weight of the sand molds and cores.

with potential:

$$122.6 \text{ tons/yr} \times 2000 \text{ lb/ton} / 8760 \text{ hr/yr} = 28 \text{ lb/hr} \quad (\text{will comply})$$

Limited Emissions

Harrison Steel Castings Company
900 North Mound Street, Attica, IN 47918

T 045-6002-00002

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Type of control	Control Efficiency (%)
Castings cooling	10	PM	1.40	61.32	61.32		
POUR		PM-10	1.40	61.32	61.32		
		SO2	0.00	0.00	0.00		
		NOx	0.00	0.00	0.00		
EPA SCC# 3-04-007-13		VOC	0.00	0.00	0.00		
AP-42 Ch. 12.10		CO	0.00	0.00	0.00		

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates greater than 30 tons per hour:

$$\begin{array}{ll}
 P = 34.32 \text{ tons/hr} & \text{P includes the weight of the metal plus the weight of the sand molds and cores.} \\
 \text{Limit} = 55 \times (P^{0.11}) - 40 = & 41.15 \text{ lb/hr} = 180.22 \text{ tons/year}
 \end{array}$$

with potential:

$$61.3 \text{ tons/yr} \times 2000 \text{ lb/ton} / 8760 \text{ hr/yr} = 14 \text{ lb/hr} \quad (\text{will comply})$$

Limited Emissions

Harrison Steel Castings Company
900 North Mound Street, Attica, IN 47918

T 045-6002-00002

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Type of control	Control Efficiency (%)
Pouring/Casting	4.5	PM	2.80	55.19	55.19		
LDL		PM-10	2.80	55.19	55.19		
SCC# 3-04-007-08		SO2	0.02	0.39	0.39		
		NOx	0.01	0.20	0.20		
		VOC	0.14	2.76	2.76		
		CO	0.00	0.00	0.00		

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than or equal to 30 tons per hour:

$$P = 28.82 \text{ tons/hr}$$

$$\text{Limit} = 4.1 \times (P^{0.67})$$

Note: P includes the weight of the sand molds as well as the weight of the metal.

$$38.97 \text{ lb/hr} = 170.71 \text{ tons/year}$$

with potential:

$$55.2 \text{ tons/yr} \times 2000 \text{ lb/ton} / 8760 \text{ hr/yr} =$$

$$12.6 \text{ lb/hr} \quad (\text{will comply})$$

Limited Emissions

Harrison Steel Castings Company
900 North Mound Street, Attica, IN 47918

T 045-6002-00002

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Type of control	Control Efficiency (%)
Castings cooling	4.5	PM	1.40	27.59	27.59		
LDL		PM-10	1.40	27.59	27.59		
SCC# 3-04-007-13		SO2	0.00	0.00	0.00		
		NOx	0.00	0.00	0.00		
		VOC	0.00	0.00	0.00		
		CO	0.00	0.00	0.00		

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than or equal to 30 tons per hour:

$$P = 28.82 \text{ tons/hr}$$

$$\text{Limit} = 4.1 \times (P^{0.67})$$

Note: P includes the weight of the sand molds as well as the weight of the metal.

$$38.97 \text{ lb/hr} = 170.71 \text{ tons/year}$$

with potential:

$$27.6 \text{ tons/yr} \times 2000 \text{ lb/ton} / 8760 \text{ hr/yr} =$$

$$6.3 \text{ lb/hr} \quad (\text{will comply})$$

Limited Emissions

Harrison Steel Castings Company
900 North Mound Street, Attica, IN 47918

T 045-6002-00002

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Type of control	Control Efficiency (%)
Castings Shakeout	2.29	PM	3.20	32.10	1.60	baghouse	95.0%
North		PM-10	2.62	26.28	1.31		
SCC# 3-04-007-09		SO2	0.00	0.00	0.00		
AP-42 Ch. 12.10		NOx	0.00	0.00	0.00		
		VOC	1.20	12.04	12.04		
		CO	---	0.00	0.00		

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than or equal to 30 tons per hour:

$$P = 10.29 \text{ tons/hr}$$

$$\text{Limit} = 4.1 \times (P^{0.67})$$

Note: P includes the weight of the sand molds as well as the weight of the metal.

$$19.55 \text{ lb/hr} = 85.62 \text{ tons/year}$$

with potential:

$$1.6 \text{ tons/yr} \times 2000 \text{ lb/ton} / 8760 \text{ hr/yr} =$$

$$0.3664 \text{ lb/hr} \quad (\text{will comply})$$

Limited Emissions

Harrison Steel Castings Company
900 North Mound Street, Attica, IN 47918

T 045-6002-00002

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Type of control	Control Efficiency (%)
Castings Shakeout	57.14	PM	3.20	800.87	40.04	baghouse	95.0%
South		PM-10	2.62	655.72	32.79		95.0%
SCC# 3-04-007-09		SO2	0.00	0.00	0.00		
AP-42 Ch. 12.10		NOx	0.00	0.00	0.00		
		VOC	1.20	300.33	300.33		
		CO	---	0.00	0.00		

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates greater than 30 tons per hour:

$$P = 257.14 \text{ tons/hr}$$

$$\text{Limit} = 55 \times (P^{0.11}) - 40 =$$

Note: P includes the weight of the sand molds as well as the weight of the metal.

$$61.27 \text{ lb/hr} = 268.36 \text{ tons/year}$$

with potential:

$$40.0 \text{ tons/yr} \times 2000 \text{ lb/ton} / 8760 \text{ hr/yr} =$$

$$9.14 \text{ lb/hr} \quad (\text{will comply})$$

Limited Emissions

Harrison Steel Castings Company
900 North Mound Street, Attica, IN 47918

T 045-6002-00002

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Type of control	Control Efficiency (%)
shotblaster	25.000	PM	17.00	1861.50	93.08	baghouse	95.0%
twin table blasts		PM-10	1.70	186.15	9.31		
L3/4-NTT		SO2	0.00	0.00	0.00		
L3/4 - STT		NOx	0.00	0.00	0.00		
AP-42 Ch. 12.10		VOC	0.00	0.00	0.00		
		CO	0.00	0.00	0.00		

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than or equal to 30 tons per hour:

$$\begin{aligned}
 P &= 25 \text{ tons/hr} \\
 \text{Limit} &= 4.1 \times (P^{0.67}) = 35.43 \text{ lb/hr} = 155.20 \text{ tons/year}
 \end{aligned}$$

with potential:

$$93.1 \text{ tons/yr} \times 2000 \text{ lb/ton} / 8760 \text{ hr/yr} = 21.25 \text{ lb/hr} \quad (\text{will comply})$$

Limited Emissions

Harrison Steel Castings Company
900 North Mound Street, Attica, IN 47918

T 045-6002-00002

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Type of control	Control Efficiency (%)
shotblaster	60.000	PM	17.00	4467.60	89.35	baghouse	98.0%
Nelle Belle		PM-10	1.70	446.76	8.94		
		SO2	0.00	0.00	0.00		
		NOx	0.00	0.00	0.00		
AP-42 Ch. 12.10		VOC	0.00	0.00	0.00		
		CO	0.00	0.00	0.00		

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates greater than 30 tons per hour:

$$\begin{aligned}
 P &= 60 \text{ tons/hr} \\
 \text{Limit} &= 55 \times (P^{0.11}) - 40 = 46.29 \text{ lb/hr} = 202.75 \text{ tons/year}
 \end{aligned}$$

with potential:

$$89.4 \text{ tons/yr} \times 2000 \text{ lb/ton} / 8760 \text{ hr/yr} = 20.4 \text{ lb/hr} \quad (\text{will comply})$$

Limited Emissions

Harrison Steel Castings Company
900 North Mound Street, Attica, IN 47918

T 045-6002-00002

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Type of control	Control Efficiency (%)
shotblaster	25.700	PM	17.00	1913.62	95.68	baghouse	95.0%
Wheelabrator Frye		PM-10	1.70	191.36	9.57		
#16 Monorail		SO2	0.00	0.00	0.00		
		NOx	0.00	0.00	0.00		
AP-42 Ch. 12.10		VOC	0.00	0.00	0.00		
		CO	0.00	0.00	0.00		

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than or equal to 30 tons per hour:

$$P = 25.7 \text{ tons/hr}$$

$$\text{Limit} = 4.1 \times (P^{0.67}) = 36.09 \text{ lb/hr} = 158.09 \text{ tons/year}$$

with potential:

$$95.7 \text{ tons/yr} \times 2000 \text{ lb/ton} / 8760 \text{ hr/yr} = 21.845 \text{ lb/hr} \quad (\text{will comply})$$

Limited Emissions

Harrison Steel Castings Company
900 North Mound Street, Attica, IN 47918

T 045-6002-00002

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Type of control	Control Efficiency (%)
shotblaster	8.000	PM	17.00	1861.50	37.23	baghouse	98.0%
Two room blasts		PM-10	1.70	186.15	3.72		
LN3-Rm and		SO2	0.00	0.00	0.00		
LN5-S Rm		NOx	0.00	0.00	0.00		
AP-42 Ch. 12.10		VOC	0.00	0.00	0.00		
		CO	0.00	0.00	0.00		
		chromium	0.00646	0.7074	0.0354		
		cobalt	0.00051	0.0558	0.0028		
		nickel	0.01139	1.2472	0.0624		
		arsenic	0.00221	0.2420	0.0121		
		cadmium	0.00102	0.1117	0.0056		
		selenium	0.00017	0.0186	0.0009		
		Lead	0.00450	0.4928	0.0246		
		Total HAPs		2.8755	0.1438		

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than or equal to 30 tons per hour:

$$\begin{aligned}
 P &= 8 \text{ tons/hr} \\
 \text{Limit} &= 4.1 \times (P^{0.67}) \\
 &= 16.51 \text{ lb/hr} = 72.33 \text{ tons/year}
 \end{aligned}$$

with potential:

$$37.2 \text{ tons/yr} \times 2000 \text{ lb/ton} / 8760 \text{ hr/yr} = 8.5 \text{ lb/hr} \quad (\text{will comply})$$

Limited Emissions

Harrison Steel Castings Company
900 North Mound Street, Attica, IN 47918

T 045-6002-00002

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Type of control	Control Efficiency (%)
shotblaster	10.000	PM	17.00	744.60	37.23	baghouse	95.0%
Room blast		PM-10	1.70	74.46	3.72		
LN5-N		SO2	0.00	0.00	0.00		
		NOx	0.00	0.00	0.00		
AP-42 Ch. 12.10		VOC	0.00	0.00	0.00		
		CO	0.00	0.00	0.00		

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than or equal to 30 tons per hour:

$$P = 10 \text{ tons/hr}$$

$$\text{Limit} = 4.1 \times (P^{0.67})$$

$$19.18 \text{ lb/hr} = 84.00 \text{ tons/year}$$

with potential:

$$37.2 \text{ tons/yr} \times 2000 \text{ lb/ton} / 8760 \text{ hr/yr} = 8.5 \text{ lb/hr} \quad (\text{will comply})$$

Limited Emissions

Harrison Steel Castings Company
900 North Mound Street, Attica, IN 47918

T 045-6002-00002

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Type of control	Control Efficiency (%)
shotblaster	13.000	PM	17.00	967.98	48.40	baghouse	95.0%
room blast		PM-10	1.70	96.80	4.84		
LN2-N		SO2	0.00	0.00	0.00		
		NOx	0.00	0.00	0.00		
AP-42 Ch. 12.10		VOC	0.00	0.00	0.00		
		CO	0.00	0.00	0.00		

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than or equal to 30 tons per hour:

$$\begin{aligned}
 P &= 13 \text{ tons/hr} \\
 \text{Limit} &= 4.1 \times (P^{0.67}) & 22.86 \text{ lb/hr} &= & 100.14 \text{ tons/year}
 \end{aligned}$$

with potential:

$$48.4 \text{ tons/yr} \times 2000 \text{ lb/ton} / 8760 \text{ hr/yr} = 11.05 \text{ lb/hr} \quad (\text{will comply})$$

Limited Emissions

Harrison Steel Castings Company
900 North Mound Street, Attica, IN 47918

T 045-6002-00002

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Type of control	Control Efficiency (%)
shotblaster	4.500	PM	17.00	335.07	16.75	baghouse	95.0%
tumbleblast		PM-10	1.70	33.51	1.68		
LN1-TMBL		SO2	0.00	0.00	0.00		
		NOx	0.00	0.00	0.00		
AP-42 Ch. 12.10		VOC	0.00	0.00	0.00		
		CO	0.00	0.00	0.00		

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than or equal to 30 tons per hour:

$$P = 4.5 \text{ tons/hr}$$

$$\text{Limit} = 4.1 \times (P^{0.67}) = 11.23 \text{ lb/hr} = 49.19 \text{ tons/year}$$

with potential:

$$16.8 \text{ tons/yr} \times 2000 \text{ lb/ton} / 8760 \text{ hr/yr} = 3.825 \text{ lb/hr} \quad (\text{will comply})$$

Limited Emissions

Harrison Steel Castings Company
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Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Type of control	Control Efficiency (%)
shotblaster	25.000	PM	17.00	1861.50	93.08	baghouse	95.0%
twin table blast		PM-10	1.70	186.15	9.31		
LN6-TT		SO2	0.00	0.00	0.00		
		NOx	0.00	0.00	0.00		
AP-42 Ch. 12.10		VOC	0.00	0.00	0.00		
		CO	0.00	0.00	0.00		

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than or equal to 30 tons per hour:

$$\begin{aligned}
 P &= 25 \text{ tons/hr} \\
 \text{Limit} &= 4.1 \times (P^{0.67}) \\
 &= 35.43 \text{ lb/hr} = 155.20 \text{ tons/year}
 \end{aligned}$$

with potential:

$$93.1 \text{ tons/yr} \times 2000 \text{ lb/ton} / 8760 \text{ hr/yr} = 21.25 \text{ lb/hr} \quad (\text{will comply})$$

Limited Emissions

Harrison Steel Castings Company
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Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Type of control	Control Efficiency (%)
shotblaster	11.400	PM	17.00	848.84	42.44	baghouse	95.0%
monorail blast		PM-10	1.70	84.88	4.24		
#18 monorail		SO2	0.00	0.00	0.00		
		NOx	0.00	0.00	0.00		
AP-42 Ch. 12.10		VOC	0.00	0.00	0.00		
		CO	0.00	0.00	0.00		

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than or equal to 30 tons per hour:

$$P = 11.4 \text{ tons/hr}$$

$$\text{Limit} = 4.1 \times (P^{0.67}) = 20.94 \text{ lb/hr} = 91.70 \text{ tons/year}$$

with potential:

$$42.4 \text{ tons/yr} \times 2000 \text{ lb/ton} / 8760 \text{ hr/yr} = 9.69 \text{ lb/hr} \quad (\text{will comply})$$

Limited Emissions

Harrison Steel Castings Company
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Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Type of control	Control Efficiency (%)
shotblaster	7.000	PM	17.00	521.22	26.06	baghouse	95.0%
room blast		PM-10	1.70	52.12	2.61		
LN2-S Rm		SO2	0.00	0.00	0.00		
		NOx	0.00	0.00	0.00		
AP-42 Ch. 12.10		VOC	0.00	0.00	0.00		
		CO	0.00	0.00	0.00		

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than or equal to 30 tons per hour:

$$\begin{aligned}
 P &= 7 \text{ tons/hr} \\
 \text{Limit} &= 4.1 \times (P^{0.67}) \\
 &= 15.10 \text{ lb/hr} = 66.14 \text{ tons/year}
 \end{aligned}$$

with potential:

$$26.1 \text{ tons/yr} \times 2000 \text{ lb/ton} / 8760 \text{ hr/yr} = 5.95 \text{ lb/hr} \quad (\text{will comply})$$

Limited Emissions

Harrison Steel Castings Company
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Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Type of control	Control Efficiency (%)
shotblaster	11.400	PM	17.00	848.84	42.44	baghouse	95.0%
chill room tumbleblast		PM-10	1.70	84.88	4.24		
Chill TMBL		SO2	0.00	0.00	0.00		
		NOx	0.00	0.00	0.00		
AP-42 Ch. 12.10		VOC	0.00	0.00	0.00		
		CO	0.00	0.00	0.00		

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than or equal to 30 tons per hour:

$$\begin{aligned}
 P &= 11.4 \text{ tons/hr} \\
 \text{Limit} &= 4.1 \times (P^{0.67}) = 20.94 \text{ lb/hr} = 91.70 \text{ tons/year}
 \end{aligned}$$

with potential:

$$42.4 \text{ tons/yr} \times 2000 \text{ lb/ton} / 8760 \text{ hr/yr} = 9.69 \text{ lb/hr} \quad (\text{will comply})$$

Limited Emissions

Harrison Steel Castings Company
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Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Type of control	Control Efficiency (%)
shotblaster	11.400	PM	17.00	848.84	42.44	baghouse	95.0%
chill room cabinet blast		PM-10	1.70	84.88	4.24		
Chill Cbnt		SO2	0.00	0.00	0.00		
		NOx	0.00	0.00	0.00		
AP-42 Ch. 12.10		VOC	0.00	0.00	0.00		
		CO	0.00	0.00	0.00		

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than or equal to 30 tons per hour:

$$\begin{aligned}
 P &= 11.4 \text{ tons/hr} \\
 \text{Limit} &= 4.1 \times (P^{0.67}) = 20.94 \text{ lb/hr} = 91.70 \text{ tons/year}
 \end{aligned}$$

with potential:

$$42.4 \text{ tons/yr} \times 2000 \text{ lb/ton} / 8760 \text{ hr/yr} = 9.69 \text{ lb/hr} \quad (\text{will comply})$$

Limited Emissions

Harrison Steel Castings Company
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Process:	Rate (tons sand/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Type of control	Control Efficiency (%)
North Sand Handling	8	PM	3.6	126.1	2.5	baghouse	98.00%
		PM-10	0.54	18.9	0.4		

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than or equal to 30 tons per hour:

$$P = 8 \text{ tons/hr}$$

$$\text{Limit} = 4.1 \times (P^{0.67})$$

$$16.51 \text{ lb/hr} = 72.33 \text{ tons/year}$$

with potential:

$$2.5 \text{ tons/yr} \times 2000 \text{ lb/ton} / 8760 \text{ hr/yr} = 0.576 \text{ lb/hr} \quad (\text{will comply})$$

Limited Emissions

Harrison Steel Castings Company
900 North Mound Street, Attica, IN 47918

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Process:	Rate (tons sand/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Type of control	Control Efficiency (%)
South Sand Handling	200	PM PM-10	3.6 0.54	3153.6 473.0	63.1 9.5	baghouses	98.00%

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates greater than 30 tons per hour:

$$P = 200 \text{ tons/hr}$$

$$\text{Limit} = 55 \times (P^{0.11}) - 40 = 58.51 \text{ lb/hr} = 256.27 \text{ tons/year}$$

with potential:

$$63.1 \text{ tons/yr} \times 2000 \text{ lb/ton} / 8760 \text{ hr/yr} = 14.4 \text{ lb/hr} \quad (\text{will comply})$$

Limited Emissions

Harrison Steel Castings Company
900 North Mound Street, Attica, IN 47918

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Process:	Rate (tons sand/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Type of control	Control Efficiency (%)
magnesium treatment	4.5	PM	1.8	35.5	35.5		
		PM-10	1.8	35.5	35.5		
EPA SCC# 3-04-003-21		SO2	0	0.0	0.0		
		NOx	0	0.0	0.0		
		VOC	0.1	2.0	2.0		
		CO	0	0.0	0.0		
		Lead	0.04	0.8	0.8		

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than or equal to 30 tons per hour:

$$\begin{aligned}
 P &= 4.5 \text{ tons/hr} \\
 \text{Limit} &= 4.1 \times (P^{0.67}) \\
 &= 11.23 \text{ lb/hr} = 49.19 \text{ tons/year}
 \end{aligned}$$

with potential:

$$35.5 \text{ tons/yr} \times 2000 \text{ lb/ton} / 8760 \text{ hr/yr} = 8.1 \text{ lb/hr} \quad (\text{will comply})$$

Limited Emissions

Harrison Steel Castings Company
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Process:	Rate (tons sand/hr)	Pollutant	Usage (% of total binder)	Ef (% released)	Ebc (ton/yr)	Eac (ton/yr)	Type of control	Control Efficiency (%)
Isocure core machine	4.5	VOC part 1	55	15	0.02	0.02		
		VOC part 2	45	9.75	0.01	0.01		
		release agents		92.5	0.01	0.01		
		TEA		100	40.41	0.20	scrubber	0.995
Emission Factors from Form R - Reporting of Binder Chemicals	Rate (lbs binder/lb sand) 1.4	Total VOC			40.45	0.25		
AFS	Rate (lbs TEA/ ton sand) 2.05	Rate (lbs/hr) 4.5						

Process:	Rate (tons sand/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Type of control	Control Efficiency (%)
Isocure core sand mixer	4.5	VOC	0.65	12.8	12.8	none	
Total Allowable from Isocure core machine and sand mixer:		24	tons/year				
VOC Part 1 (uncontrolled)		0.02	tons/year				
VOC Part 2 (uncontrolled)		0.01	tons/year				
release agents (uncontrolled)		0.01	tons/year				
VOC from mixer (uncontrolled)		12.81	tons/year				
Allowable from TEA scrubber		11.14	tons/year	=	2.54	lbs/hr	

Limited Emissions

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Pollutant	Total Potential Emissions (tons/year)	Pollutant	Emissions After Controls (tons/year)
PM	7703.66	PM	582.46
PM10	2924.29	PM10	408.04
SO2	28.10	SO2	28.10
NOx	35.68	NOx	35.01
VOC	342.60	VOC	342.55
CO	1.25	CO	0.06

Methodology:

Ef = Emission factor

Ebc = Potential Emissions before controls = Rate (units/hr) x Ef(lbs/unit) x 8760 hrs/yr / 2000 lbs/hr

Eac = Potential Emissions after controls = (1-efficiency/100) x Ebc

1 lb = 2000 tons